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Fundamental Conditions
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Economic Independence
OF
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Fundamental Conditions
of the
Economic Independence
of Poland

BY JOSEPH FREILICH, PH. D.

(Translated from the French)

UNIV. OF CALIFORNIA

CHICAGO
POLISH NATIONAL DEFENSE COMMITTEE
1918

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PREFACE

The problem of the economic independence of Poland, as the question of economic independence of state organisms, in general, is one of the most complicated problems of political economy.

For it is certain that now, in this economic period of the twentieth century, characterized by a world-wide exchange of merchandise, there does not exist a single state organism which is economically independent in the strict sense of the word. Even the most powerful contemporary states, from an economic point of view, that possess enormous forces of production and consumption, are not self-sufficient and can barely carry on an isolated economic life. They are obliged to depend to a great extent on the politico-economics of other organisms, either as consumers or as producers but generally as consumers and producers at the same time. Only the earth, considered as a whole, constitutes a complete economic organism which is sufficient unto itself, since naturally, it is forced to be so.

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But, the different parts of this organism, the states and countries that make up its constituent parts, cannot possess absolute, economic independence: they are political organisms endowed only with relative economic independence.

So examining, in our study, the conditions and factors of economic independence in Poland, we can have in view only those elements that, deciding the degree of her independence, result chiefly from the favorable situation of the elementary factors that, in the largest sense of the word, determine modern production, that is: **natural resources, human work and capital.** In addition to these principal factors there are still other important elements that must be considered, namely: the geographical situation of the country, access to the sea, and general means of communication with the world at large, that is to say, with all the other economic organizations of our globe.

The Polish lands, at the present divided between the three partitioning States, Prussia, Russia and Austria, condemned for more than one hundred and forty years to vegetate in political and economical conditions entirely different, often opposed, considered as a whole, as one political and economical unit, undoubtedly respond to the conditions required by theory and practice, for the existence and development of independent, economic organisms. All of these conditions and factors, especially the natural wealth of Poland, and her geographical situation, by virtue of which her natural and artificial ways of communication connect western Europe with the Orient, the Baltic Sea with the Black Sea, all these essential and secondary

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factors show that the Polish lands, as a whole, consolidated into a state organization, will form a great economic organism, in the center of Europe endowed with a serious force of expansion, possessing a degree of independence equal, at least, to that of the other countries of Europe which have been looked upon as economic organisms eminently independent.

The aim of this work is to retrace and to determine the conditions and factors which constitute the basis of the economic independence of Poland. It is proposed to show the industrial evolution of Poland and to place in evidence the principal conditions that would considerably accelerate and facilitate this evolution.

The degree of economic development of every politico-economic organism depends essentially upon its industrial development in quantity as well as in quality. The more a state possesses the character of an industrial organism, the more apt will its industrial production be to meet the competition of the world markets with success; the more will such an organism be considered as developed, firmly established and as possessing in itself the elements of its future expansion.

Although before the European war, Poland did not have a distinctive industrial character, although much of her territory was agricultural, still taken as a whole, she possesses the fundamental conditions necessary to become an immense European industrial workshop. But, in order that this may come to pass, the political and economic causes that have hindered the normal development of industry must be eliminated. The principal cause was the dismem-

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berment of the Polish economic organism by the three sharing States.

The formation of an independent Polish state, including all Polish territories, is a necessary condition of the future economic development of Poland, and therefore, of the political and cultural development of that part of the European continent comprised between the Baltic Sea and the Carpathians, between the Odra and the Polesie.

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I.

THE INDUSTRIAL POLICY OF THE POLAND - SHARING STATES AND THE ECONOMIC INTERESTS OF POLAND

The economic life of the country of the Poles, especially the industrial production, has developed under the unequal, and generally unfavorable conditions brought about by the economic policies of the three sharing States. These policies are essentially different for each part of Poland and take into very little or no account whatever Polish interests and requirements.

In the Kingdom of Poland, (the part held by Russia) which is the part of Poland most developed economically, the foundations of the national industry were established by the local government of the Kingdom formed at the Congress of Vienna in 1815. A wide and methodical movement to improve and increase the industry of the country was undertaken by the government. All the merit of having brought the manufacturing industry to life and of having assured its progress should go to Prince Xavier Francois Lubecki, Treasurer of the young Kingdom and in charge of the direction of its finances toward the end of the year 1821.

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Conducted systematically and with great energy by Lubecki, the industrial movement of the Kingdom developed in two different directions. First, new industrial centers were protected and others created for the benefit of the Treasury. Then profitable foreign markets were secured for the national products. The question of opening up outside markets in Russia and the Extreme Orient, for the products of the Kingdom; in other words, the questions of transit and customs relations between the Kingdom of Poland and Russia, were regulated through Lubecki in a most satisfactory manner.

In fact, after this settlement of the custom relations on the basis of the tariff of 1822-24, the exchange of merchandise between the Kingdom and Russia could be carried on almost without import duty. The commercial policy of Russia at that time was highly prohibitive toward the western States, while the Kingdom of Poland possessed an autonomous Polish-Prussian and Polish-Austrian tariff (decisions of the trilateral commission; treaty of 1818 with Prussia, and of 1819 with Austria). This situation had a very favorable influence upon the development of the young and rising industry of Poland.

The Kingdom of Poland became in part the finishing shop of foreign half-made products, especially Prussian, which finally reached Russia as Polish products and, because of the Polish-Russian customs conventions, almost without import duty. Besides this system of custom relations, outlined above, between the Kingdom of Poland and the Western countries on the one hand, and Russia on

the other, was favorable to a brilliant expansion of Polish industry, especially the woolen cloth industry.

The unfortunate result of the Polish insurrection of 1830-31 was felt not only in the political and cultural life of the Kingdom but in its economical life as well. The Russian government, as soon as the flames of the revolutionary fires were smothered, made haste to modify the Polish-Russian custom and commercial conventions, which as has been stated, had such a very favorable influence upon the development of the economic life of Poland.

At the beginning of the month of November, 1831, new custom tariffs for transit goods were worked out and introduced, that were to regulate the exchange of merchandise between the Kingdom and Russia. These new rates were manifestly disadvantageous to Polish industry and commerce and were made purposely as reprisals. The result was an important emigration of Polish manufacturers. Some moved their manufactories into Russia, while others built new factories on the other side of the customs frontiers but still near the Kingdom. Thus, the growth of industry in and about Bialystok began.

However, notwithstanding the severe Russian custom tariff reprisals, that lasted nearly twenty years, Polish industry did not die out. Only those enterprises that were financially weak and without economic vitality were ruined. Instead, the industry of the Kingdom spread out into new lines of production and began, in larger measure, to take into account the needs of the home markets, and, though less rapidly than in the time of the constitutional Kingdom of the Congress, continued to develop.

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The year 1850 was a turning-point in the history of the politico-economics of Russian-Poland. Under the influence of different important factors, the Russian government decided, towards the end of the forties of the last century, to break off from the prohibitive system and to replace it by a more liberal tariff. At the same time, in St. Petersburg, (for purely political reasons), the question of the unification of the Polish-Russian customs and of extending the new Russian tariff to the western frontiers of the Kingdom of Poland was brought up. After long deliberations and preparatory work, the project of the unification was realized in April, 1850. It was then towards the end of 1850 that the independent position of the Kingdom of Poland (in its commercial policies) was suppressed. Since then this part of Poland has remained incorporated in the economic organism of Russia, and as a result of this, the industry of the Kingdom has developed within the limits of conditions created by the Russian tariff policy and, in general, by the Russian economic policy.

The suppression of the Polish-Russian custom frontier was of great importance to Polish industry. The Russian markets opened to Polish industrial products, and transit commerce with the markets of Oriental Asia again sprang into life. Moreover, the new Russian customs tariffs, without giving commercial liberty, allowed a certain liberalism. They were favorable to the interests of the Kingdom of Poland by their relatively low import duties on raw materials and textile half-products. Then too, they hindered the foreign importation of certain products (sugar, alcohol, beer) and favored the development

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of the principal agricultural branches of industry of the country.

The utter change brought about in 1850 in Polish-Russian tariff and commercial relations, and in the tariff policy of Russia itself, contributed to the progressive transformation of industry. A series of secondary causes (the blockade of Russian ports during the Crimean War, construction of railroads in Poland and Russia and the economic consequences of the next to the last Russian-Turkish war) also helped to change the small industries and manufacturing establishments that existed before 1850 into a great capitalistic industry. The strong protectionist tariff of Russia, begun in the seventies of the last century, although originally brought out for fiscal motives, accelerated industrial concentration in the Kingdom and favored the growth of new establishments and new centers of production. So, during this period of rigorous protectionism, that lasted from 1887 up to the beginning of the European war, Polish industry gained strength, acquired all the attributes of a great capitalistic production and showed a marked tendency toward concentration. Poland lost, during this period, the character of an agricultural country and became, side by side with Upper Silesia, a fundamentally industrial region.

Although Polish industry has expanded principally during the last forty or fifty years, that is to say, during the period of the protectionist policies in Russia, it would be wrong to conclude that it was only because of state protection that it developed, or that the Russian customs policies had only a favorable influence upon it.

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In fact **the aim of the protectionist customs policy, as well as of all the industrial policies of Russia, was above all, for the protection of the industries in the Russian Empire properly speaking, in those provinces only, which were actually Russian.**

Likewise in transports, tariffs and in the whole fiscal question generally, the needs of the Russians were first taken into consideration and these very often clashed with the needs and interests of Polish industry.

This partial attitude has become signally obvious during the last twenty or twenty-five years. The Russian customs policy, that for forty years had been extremely protectionist, first from purely fiscal motives, reached its culminating point in 1894, after the conclusion of the treaty with Germany. Until then the Russian government had protected, by an adapted system of customs tariffs, the manufacture of finished products; after that they undertook to protect the half-products and raw material. The principal object that led the government to take this course was to accelerate or even to create Russian production of raw materials or half-products such as metal ores, coal and coke, and especially cotton, pig-iron, etc.

Polish industry suffered from this extension of the Russian protectionist customs tariffs because it was based in large measure on the importation of raw materials from abroad. In fact, there are no cotton plantations in Poland or in Europe and the coal mined in the district of Dombrowa (that part of the Silesian-Polish coal district that is in Russian Poland) is unfit for the production of metallurgical coke which is indis-

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pensable in modern iron industry; the Polish iron-ore which contains only 30 or 40% of metal, is only used together with richer ores that must be imported. Then too, the relatively high import duties on foreign cotton (from America and Egypt), on coke (from Upper Silesia and Karwina-Ostrowa) and on the ores (from Sweden and France), established by the Russian government to protect the cotton production in the Caucasus and Turkestan and the coal and coke industry, as well as the metallurgical products of South Russia, have burdened considerably the industrial production of the Kingdom.

The very high import duties on cotton and the different kinds of thread had a most unfavorable effect on the cotton industry of Russian Poland. For although the increase in the cost of production has not hindered the powerful development of the Polish textile industry, still it has had a harmful influence by making competition with the Russian textile industries on the Russian home markets still more difficult. Moreover, it is only because of this high import duty on foreign cotton that the use of cotton from Turkestan and the Caucasus has grown so extensively during the last twenty-five years. In 1890, 135,000 tons of raw cotton were used in the Kingdom of Poland, of which about 32,000 tons were Russian. In 1900, 270,000 tons, of which 100,000 were Russian, and in 1910, 355,000 tons, of which about 180,000 were Russian. Thus, Russian cotton of an inferior quality and more expensive, is being used more and more because of the protective tariff on imported cotton. During the years preceding the war the amount of Russian

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cotton reached at least 55% of the entire quantity used.

The import duties on coal and coke, as well as on iron, imported from western and northwestern countries of Europe, have also been the cause of much loss to Polish industry. Because of the lack of coke production in the Kingdom of Poland, the Polish metallurgical industry has been obliged to import coke from Upper Silesia, Silesia of Cieszyn and Opawa. But the Russian government, to protect the coke production and the metallurgical industry of southern Russia, fixed high import duties on coke ($0.50 a ton). Considering the relatively large quantities of coke imported (55 to 60 thousand car loads a year) for the metallurgical factories and the other industrial establishments, these import duties have burdened, without any compensation, the Polish metallurgical production, and in consequence, increased the price of pig iron and of all metal products, machines, utensils, etc. Thus, the Russian tariff policy, guided exclusively by the interests and needs of Russian industry, systematically caused great losses to the metallurgical industry of Russian Poland. The same thing may be said of many other branches of Polish industry. The high duties on coal, pig-iron and other raw materials have been directly prejudicial to many other branches of Polish industry, as well.

The Russian transportation system, especially in its tariffs, also shows the indifference and even the ill-will of the Russian government toward the needs and interests of Polish industry.

The lack of lines of communication on land and

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water, especially the inadequate railroad system, together with the absolute subordination of the most vital economic interests of the country to strategical considerations, has had a very harmful influence on industrial production by holding up the transportation of raw materials and fuel to factories, by hindering the transportation of manufactured merchandise and by decreasing the extent of the home market. Besides which, in certain parts of the country, near the borders, for example, the national products could not withstand the competition of foreign products because of the irrational configuration of the system of railroads that had been built for military purposes. A striking example of this abnormal situation was the increase in the use of coal from Upper Silesia (that is to say, according to the frontiers existing before the war, foreign coal) in those parts of the country that could not be reached except in a roundabout and therefore more expensive way from the mines of Dombrowa. The Russian railroad tariff policy favored chiefly the importation of Russian grain, raw material and textile products into the Kingdom and abroad and at the same time limited the exportation from the Kingdom toward the interior of Russia or abroad.

The Russian industrial tax policy was also unfavorable to the development of Polish industry, as, in a general way, all the tax policies of Russia were. Competition was made easy for industries that were really Russian and they showed great force of expansion.

In a word, the industrial as well as the economic policy of Russia, taken in a general sense, was marked by indifference and ill-will towards the real

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economic needs of Polish industry and towards the entire economic life of Poland. **In the old conflict between the industries of the Kingdom of Poland and those of Russia proper, that reached its height in the competition between the textile industries of the two countries — in the struggle between Lodz and Moscow, the Russian government openly took the part of Moscow.** This government protection given to Russian industries made competition, on the markets of Russia and the Extreme Orient, much more difficult for Polish industries. Still more significant, the consequence of this was an increase during recent years in the importation of Russian merchandise, onto the markets of the Kingdom. This importation included not only raw material such as iron ore, pig-iron and cotton, but more especially the manufactured textile products. **The Oriental markets that served as bases for these false and erroneous political notions, showed, as Russian industry favored by the government developed, an unexpected instability.** The situation of Polish industry on the markets of the Orient, not only became from year to year more difficult and disadvantageous, but further, Russian industry began to win over the western markets, that is, Polish markets, to the evident detriment of the industrial interests of the Kingdom.

* * *

The general development of industrial production in the Polish provinces forming Prussian Poland, (the Grand Duchy of Posnania, Western or Royal Prussia, Eastern or Ducal Prussia, and Upper Silesia or Silesia of Opole), taken as a territorial and economic whole, has been, up to the present

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time, comparatively small. This vast territory, having an area of about 10.000 square kilometers with a population of 8½ millions, is pre-eminently an agricultural country, with the exception of the south-eastern part situated between the Odra and its tributary, the Malapane, that forms the rich and very extensive coal fields of Upper Silesia.

The absence of well developed industry in the Prussian part of the Polish lands (except in Upper Silesia) is explained by several important causes and factors. First, all of this western and north-western part of Poland is lacking in minerals. In the Grand Duchy of Posen, in Western Prussia and in Eastern Prussia, there are no coal fields or metal ores of any value. It is well-known that such deposits form one of the principal factors of industrial development. The great extent of this fertile land and the agricultural and protectionist policies of Germany which are favorable to agriculture, have directed the efforts of almost all the population of these provinces to the tillage and cultivation of the soil. Other secondary causes were: the German transportation policy that was largely governed by strategical motives and concerned with the interests of German industrial production; insufficient canalization of the Vistula and Niemen rivers inside the Russian boundaries that was unfavorable to the speed and cost of transportation and importation of raw materials from the Kingdom of Poland and Lithuania to factories and industrial establishments situated in Prussian Poland; and lastly the constant emigration of competent workingmen to the western provinces of Germany, where, for different reasons, conditions were more favorable for the working

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class. The result of all this was a very small industrial development in the Grand Duchy of Posen and in Western and Eastern Prussia.

But on the contrary, the fourth province of Prussian Poland — Upper Silesia — possessing immense mineral wealth in coal, zinc-ore, iron and lead, has become, in the last forty or fifty years, a powerful center of production, one of the largest in Poland and one of the most important in Europe. In the southern and south-eastern parts of Upper Silesia (in the centers of Katowice, of Bytom, of Zabrze, of Huta-Krolewska, of Tarnowskie Gory, of Gliwice, of Pszczyn, of Rybnik and of Opole) other industries besides the mining of coal and minerals have developed, such as metallurgical coke, steel, chemical, cement and mechanical industries. Thus, of all the provinces of Prussian Poland Upper Silesia alone, has developed into a great center of industry and is the most industrial region in all Poland.

Industrial production is new in the other provinces of Prussian Poland, especially in the Grand Duchy of Posen and in Western and Eastern Prussia and has no rich or instructive past. But the mining and metallurgical industries of Upper Silesia with its immense coal basin are already old and have a history full of interest. It is sufficient to call to mind that it was here, in Upper Silesia, in the lead mine **Frederick**, that the first steam engine ever built on German territory was erected in 1788; it was here also in 1795, in the metallurgical factory of Gliwice, that the first blast furnace was built.

Quite as interesting as the history of the technical development of this industry in Upper Silesia is

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its politico-economic history, comprising all the transient periods that led from a production, inisignificant and purely local, to the present powerful one, of European importance; comprising all the tragic episodes for Polonism, and above all, the confiscation of Polish domains in the reign of Frederick The Great, that were then delivered up, soil and subsoil, to foreigners, enemies of Poland.

In general, as far as the ownership of industry was concerned, the situation in Prussian Poland developed unfavorably for the Poles. Industrial production was neglected by the Polish nation, chiefly because of the peculiar social economic organization of the population in this region of the ancient Republic. Besides, working conditions were exceptionally difficult, brought about not only by the natural difficulties but also by the hostile attitude of the Prussian government in regard to Polish industry. These obstacles, until quite recently, have hindered the development of Polish industrial labor organizations, they have weakened the development of concentration and hindered the creation of new industrial establishments, directed and worked by Poles.

On the other hand, the Prussian government has spared neither energy nor money to accelerate, facilitate, and support the foundation and development of German industrial enterprises. In doing this, the government and its representatives have been guided exclusively by anti-Polish political motives. **In its determination to Germanize Prussian Poland, the Prussian government has attached great importance to this economic struggle against the Polish population.** Thus, they tried systematically

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to create a well-to-do German middle class in the cities of Prussian Poland by protecting German tradesmen and by favoring the development of small German industries. But in this economic struggle, the artificially protected German middle class could not hold out against the energetic competition of the young Polish bourgeois, tradesmen, merchants and small manufacturers and were obliged, little by little, to yield their places to the Poles. Thus, those in Prussian governmental circles were led to the conviction that in the field of small production the German immigrants, who had been encouraged to settle in the towns and villiages of Prussian Poland, could never assert themselves; that only a capitalistic production would do away with Polish competition.

Among the partisans of this system for the Germanization of Prussian Poland, was Dr. Gosler who for many years occupied the position of Super-President of Western Prussia. In 1898, after having made a study of the western and central industrial centers of Germany, Gosler began to establish new German industrial enterprises in Prussian Poland.

At Danzig in 1890, with the co-operation of the German banks and the Super-Presidents of the Grand Duchy of Posen and of West Prussia, Dr. Gosler established a special institution for the protection of German industrial enterprises in the eastern provinces, (Centralstelle zur Foerderung industrieller Unternehmungen in den oestlichen Provinzen). This institution took part in the creation of several large German industrial enterprises in Prussian Poland, especially in East and West Prussia. But many of these enterprises that had been

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founded to fill political rather than economic needs lacked vitality and soon failed. However, the Gosler movement, supported by the great German bankers and profiting by state protection, certainly strengthened German industry, especially capitalistic industry in Prussian Poland.

The highly protectionist system applied by the German government to German industry in Prussian Poland, was clearly shown by the personal and official actions of the highest government officials in the different Polish provinces. Besides this, the hostility of the Prussian government towards Polish industry was shown in a striking manner by the government boycott of Polish enterprises. In fact no Polish industrial establishment and no factory or manufactory, belonging to Poles ever received a State order, though it is a well known fact that the Ministers of the Army and Navy, of Railroads and Government Mines are the chief clients of German industry. In Prussian Poland, German enterprises received all government orders while Polish enterprises were, on principle, set aside.

Thus, the policy of absolute boycott against Polish industrial enterprises that has been rigorously practiced for many years by the Prussian government and the state organizations of the German Empire, has hindered the expansion of industry in Prussian Poland. Especially so, since only a rational protective attitude taken by the State, as a consumer, could have contributed to the development of Polish industry, because of the small capacity of the local markets and the total impossibility of withstanding the competition of the powerful west and central markets of the great German industries. It

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must be added that this absolute boycott of Polish industrial enterprises, practised by all the central and local organizations of the German and Prussian governments, was continued by the autonomous authorities and public institutions such as the Provisional government, County Supervisors, Councils and City Administrations. The latter, by a selective, electoral form of government, are mostly in German hands although in many of the towns of Prussian Poland the majority of the population is Polish.

German banks in the cities of the Grand Duchy of Posen, of Western and Eastern Prussia and Upper Silesia have also been of great service to German industry. These banks have always considered their principal task to be the protection of German commerce and industry in Prussian Poland and as they were closely connected with the greatest banking industries of Germany, the advantages thus gained were considerable. The Polish industrial enterprises in the meanwhile were obliged to rely almost entirely on the Polish credit organizations, fortunately well developed, though of course much less powerful than the German organizations supported by the great Berlin banks.

It was then, the anti-Polish policy of the Prussian government that retarded the development of industry in Prussian Poland by the boycott of Polish enterprises and also by dispossessing Polish landowners and establishing German colonies on the land taken forcibly, for themselves, from the Poles. All this Prussian policy hindered the expansion of the productive forces of the country and weighed down the production with too heavy burdens. The productive forces of the country, mainly agricul-

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tural, suffered from the high prices of land caused for one thing by the colonization policy of the Prussian government, that lowered the rates of income and thus brought about a decrease in the capacity of the home markets in Prussian Poland. This situation was beneficial to a small number of German manufacturers and Prussian bankers. By threatening to sell their property, involved in debt, to the Poles, they always succeeded having it bought, very advantageously for themselves, by the Prussian colonization committee.

* * *

In Austrian Poland, in Galicia and in Silesia of Cieszyn, conditions have also been very unfavorable to economic life and industrial production.

Aside from Silesia of Cieszyn (that includes a part of the coal district of Karwina-Ostrawa where, near the town of Bielsk, the coal and textile industries developed) in the rest of Austrian Poland, that is to say, in Galicia, which makes up the greater part of it, industrial production has developed very little. Yet Galicia has immense natural wealth, — magnificent coal beds in the district of Cracow; petroleum fields, perhaps the largest and richest in Europe; the celebrated salt mines; besides beds of all kinds of clay, which are the raw products used in the manufacture of pottery. Still, in spite of all this wealth, until recent years, Galicia has been from the industrial point of view the most backward region of Poland and the part having the least industrial development.

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This unfavorable situation in Galicia has been caused chiefly by the retrograde industrial and economic policy of Austria. "The concepts of industry and those of Austria", said Mr. M. P. Morawitz, Director General of the Anglo - Austrian Bank of Vienna, in March, 1908, at a meeting of Austrian economists, "are not the same. Industry is the expression for the highest progress while Austria in many respects, still lives on in the epoch before 1848. This is why the juxtaposition of these two terms is in a way a contradiction. It is as if one spoke of the sunny skies of London". This true characteristic has been confirmed in the backward industrial and harmful custom policies of Austria; **a policy that has delivered Galicia up to the powerful Austrian industrial trusts and to the Austrian government that have treated this part of Poland as a colony to be exploited to the utmost.**

The import duties on industrial products are such that the trusts of western Austria, that is to say, the manufacturers of Vienna, Bohemia, Moravia and of Styria can force high prices in the Galician markets on the most necessary industrial articles. Supported by the central authorities at Vienna, their influence is such that no industrial establishment can be founded in Galicia without the consent of the trusts of that branch of industry. Needless to say, the trusts have obstinately opposed the establishment of new centers of production in Galicia. Long years of experience and observation of the policies of the trusts have proven that Galicia has been treated as a market and not as a center of production.

The government is entirely indifferent to this

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policy of the trusts that is so harmful to the interests of Galicia. But what is worse, **they often indirectly uphold the hostile actions of the trusts of Western and Central Austria,** and it is only in exceptional cases that the government will give way to the Polish representatives in the Vienna Parliament. The Austrian policy has acted as a check to the industrial development of Galicia through taxes levied on industry. The comparison that has been made so many times between the rates of the professional taxes of Austria and those of other states shows a difference prejudicial to Galician industry. This state of things was made worse by a system of supplementary taxes in autonomous lands; provincial, district and township taxes. In Galicia these supplementary taxes that were most harmful to the expansion of industry greatly exceeded the taxes in other parts of Austria. This was the consequence of certain peculiarities of the Austrian fiscal legislation and also because of the precarious situation of the Galician finances.

Austria's indifference to the industrial and economic interests of Galicia is shown also in a striking manner by her transportation policy. This policy was distinguished from the first by the two following characteristics: first, the Austrian government estimated each new line of railroad in Galicia from a strategical point of view and then, methodically neglected the economic needs of the country and, as has already been said, this neglect was the result of the fact that Galicia was considered merely as a near by and convenient market for the industry of the western provinces of Austria. The system of Galician railroads, like those in Russian and Prussian

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Poland, were not only insufficient but irrational and responded in no way to the economic interests of the country.

The government has been just as inactive in the construction of highways. It was only through the energetic efforts of the autonomous governmental bodies that, during the last fifteen years, roads have finally been constructed, and again the Vienna government brought pressure to bear to have strategical highways built. The State policy in regard to the interior waterways of Galicia, showed the same neglect, the canal question became almost a scandal. Work was held up for nearly eight years on the canal from the Vistula to the Odra. This work that had been prescribed by law, voted and sanctioned by the Parliament, was hindered by the malicious policies of the government. It was only in 1911, under pressure of the Polish representatives in Parliament, that the government decided to undertake this work and that finally construction was begun.

In a word, in Austrian Poland as well as in the other parts of Poland, although perhaps in another form, economic life, especially the development of industrial production, was hindered by the peculiar and unfriendly policies of the government, that were manifest in all branches of economic activity. So, the economic policy of Austria, together with her organic and social defects, was the cause of the lack of industrial development in Galicia and thus, in spite of her enormous wealth and great reserve of man-power, Galicia became the country that, unable to export her industrial products, was compelled to export human beings. Galicia of all the

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Polish provinces had the greatest emigration — to her national and material detriment.

* * *

In the foregoing pages we have retraced the principal factors that have combined in the three parts of Poland to hinder the development and growth of economic and industrial life. Neither industry nor commerce and to a certain degree, not even the agricultural production, has had the real protection of the state. In the western countries of Europe, experience has shown the great importance of the protection of the state as a factor in development, when rationally and sincerely applied. Without this friendly protection, industry, commerce and rural economy have been unable to make full use, for production and exchange, of all the natural wealth that abounds in the Polish countries; have been unable to benefit fully by the favorable geographical situation, and have been unable to use the immense reserve of man-power of which Poland disposes. The attitude of the sharing governments in regard to the economic needs of the different parts of Poland has been the typical attitude taken by foreign conquerors towards the country conquered.

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II.

DESCRIPTION OF THE DEVELOPMENT OF THE INDUSTRIAL PRODUCTIVE FORCE OF THE POLISH COUNTRIES.

Industrial life in the Polish countries has developed under generally unfavorable conditions. There has never been a loyal state protection of industrial production, on the contrary, the economic policies of the sharing States adapted to their own fiscal needs, taking into account first of all the industrial interests of Russia, Germany or Austria, often hindered the industrial development of Poland. Yet in spite of all these unfavorable conditions, industrial production in Poland — because of the great natural wealth of the country, its geographical situation, and great reserve of manual labor — developed considerably.

From the point of view of industrial development, Poland, taken as a territorial and economic whole, certainly occupies an important place among the European states.

In fact, in the Kingdom of Poland, in Prussian Poland (Upper Silesia, the Grand Duchy of Posen and Western Prussia) and in Galicia there were according to the statistics of 1907-1910, from twenty-two to twenty-five thousand industrial establishments (not including the small artisan shops) employing more than nine hundred thousand men, and having an annual production of 5 billion francs.

Table I. gives the detailed distribution of workingmen according to different branches of industry in different parts of Poland.

Table I. — Number of workingmen employed.

Industry	Kingdom of Poland	Prussian Poland	Galicia	Totals
Textile	150,000	8,000	5,000	163,000
Food industry	43,000	60,000	21,000	124,000
Metals	62,000	60,000	11,000	133,000
Mines & metallurgy	46,000	150,000	18,000	214,000
Garments	25,000	20,000	1,000	46,000
Mineral	23,000	40,000	20,000	83,000
Chemical	9,000	9,000	5,000	23,000
Animal products ...	7,000	3,000	1,000	11,000
Paper & printing...	15,000	10,000	6,000	31,000
Wood	17,000	40,000	12,000	69,000
Various	3,000			3,000
Totals:	400,000	400,000	100,000	900,000

There were in round numbers, nine hundred thousand workingmen engaged in industrial enterprises in all parts of Poland, four-ninths in the Kingdom of Poland, four-ninths in Prussian Poland and only one-ninth in Galicia together with the Grand Duchy of Cracow. To this important figure must be added the one hundred thousand laborers working in the mining and industrial establishments of Silesia of Cieszyn, and in the manufactories of the district of Bielsk. This gives **a positive figure of at least one million industrial workingmen employed in the Polish countries** just before the outbreak of the war. This is a minimum figure because the five years preceding the war were a period of great industrial activity in the Kingdom of Poland and in Upper Silesia. During this period a large number of important industrial establishments were founded in the Kingdom of Poland, which increased the

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number of factory laborers. During this same period also the mining and metallurgical industries of Upper Silesia developed rapidly.

Table II. brings out bettter the intensity of industrial production. This table shows in francs the value of the production of different branches of industry in the three parts of Poland.

The total value of industrial production in the Polish countries, included in this table according to calculations for 1910, are about 4,900,000,000 francs. Considering that the value of production in Silesia of Cieszyn and in the district of Bialystok was at least 300,000,000 francs, **it can be approximately estimated that the total value of the industrial production in the Polish countries was 5½ billion francs,** since during the last five years preceding the war, industrial production in Upper Silesia and in the Kingdom of Poland had a very vigorous and rapid growth.

The statistical data in these two tables, giving the number of workingmen occupied in industrial establishments and the value of the production of different branches of industry, show likewise the interior structure of Polish industry.

Thus Polish industry is characterized in general by two principal features: first, by a great development in **mining and metallurgical production, amounting to a billion francs a year, (including the production of Silesia of Cieszyn) then, an important development in manufacturing industries, such as the textile, garment and metal industries.** During the years 1907-10, the total value of the production of the different branches of these manufacturing industries amounted to 1 billion 800 million francs

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Table II. — Value in francs of total production.

Industry	Kingdom of Poland	Prussian Poland	Galicia	Totals
Textile	888,000,000	25,000,000	33,000,000	946,000,000
Food industry	402,000,000	450,000,000	314,000,000	1,166,000,000
Metals	286,000,000	300,000,000	34,000,000	620,000,000
Mines & metallurgy.....	156,000,000	700,000,000	72,000,000	928,000,000
Garments	124,000,000	80,000,000	3,000,000	207,000,000
Mineral	79,000,000	150,000,000	41,000,000	270,000,000
Chemical	77,000,000	80,000,000	53,000,000	210,000,000
Animal products	76,000,000	35,000,000	8,000,000	119,000,000
Paper & printing.....	66,000,000	50,000,000	23,000,000	139,000,000
Wood	60,000,000	150,000,000	53,000,000	263,000,000
Various	18,000,000			18,000,000
Totals:	2,232,000,000	2,020,000,000	634,000,000	4,886,000,000

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a year, surely an important figure, if one considers the unfavorable and difficult conditions under which industry was carried on in the Polish countries.

The great development of the **Polish mining and metallurgical industries** that occupy one of the first places on the balance sheet of industrial production in the Polish countries was based on the great mineral wealth, particularly the rich coal fields of the mining district of Silesia, and also on the abundance of other mineral products such as: oil, salt, zinc-ore and in lesser quantity, iron-ore. The mineral wealth of the country is also one of the decisive factors in the development of the manufacturing branches of Polish industry. Without the coal and metallurgical industries, neither the development of textile or the growth of metal production which reached such a high level of technical perfection in the Kingdom of Poland and in Prussian Poland (Upper Silesia) could have been possible. The low cost and abundance of labor that played such a very important role in the economic development of Poland, especially in industry, developed the garment industry. This included not only the raw material and half-product textiles but animal matter, as well. Thus it was that before the war there were not only boot and shoe but leather goods factories as well, both of them very important.

Food products was another important branch of Polish industrial production. One hundred and twenty-four thousand workingmen were employed with an annual output of 1 billion 200 million francs in these industries that are so closely connected with the agricultural production and which have acquired great value.

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The great importance of this branch of industry resulted in the development of **sugar refineries. Before the war there were about one hundred and ten sugar factories in the Polish countries with an annual output of nearly 1 million tons of raw sugar. Thus Poland occupied one of the first places in the sugar production of Europe, being surpassed only by Germany, Russia and Austria.** In a word, up to the present time, the Polish countries have been one of the principal centers of sugar production in Europe. They surely would have been able to hold that place and might, even, have reached the first rank.

The **distillation of alcohol** from potatoes was another well developed branch of the food products industry. There were many large refineries in the country, generally agricultural, and the annual production of alcohol reached two million hectoliters, about half of which came from Prussian Poland, two-sixths from Austria, and one-sixth from the Kingdom of Poland.

The sugar and alcohol industries have grown to such an extent that they now occupy the most important place in Polish production. The agricultural character of a great part of Poland, especially Prussian Poland (not including Upper Silesia) and Galicia has been the cause of the great growth of these two branches of the food industry.

The other branches of industrial production in the Polish countries of which more than one became important, as can be seen from the above figures, were founded on the natural wealth of the country, which was easily exploited because of cheap and plentiful labor; as example, we may cite the well

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developed **wood industry** in Prussian Poland — in West and East Prussia especially. This industry is even more developed in the Kingdom of Poland.

The wood industry enterprises in West and East Prussia worked mostly with the raw material from local forests and wood imported, by the Vistula, the Niemen and their tributaries, from the forests of the Kingdom of Poland, from Lithuania, Galicia and also from Russia. Principally half-products were manufactured there, such as lumber, beams, rafters, boards and mining timbers. The manufacture of finished wood products, especially furniture, was little developed.

But in the Kingdom of Poland, the wood industry though not so extensive as in Prussian Poland, was greatly superior in workmanship; chiefly the manufacture of furniture. At Warsaw, at Nowo-Radomsk, at Lodz, at Czenstochowa and at Radom, there were large furniture factories, some of them being powerful capitalistic enterprises.

In Galicia, notwithstanding the great wealth of forests, the wood industry, much less developed, was limited to the manufacture of cut-wood, lumber and half-products to be exported into the western provinces of Germany and Austria.

The **mineral industry** was also extended in the Polish contries because of the natural wealth.

Numerous pottery factories of all sorts: of cement, glass, terra-cotta, crockery, lime-kilns, etc., employed nearly 83,000 workingmen during the years 1907-10. The annual output amounted to nearly 270 million francs. Among the different branches of Polish mineral industry, the most important was

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the cement industry that had become one of the great capitalistic industries.

Before the war there were twenty-five cement factories in operation in the Kingdom of Poland, Prussian Poland, Galicia and in Silesia of Cieszyn, having an annual output of nearly 120,000 tons of Portland cement and with a capital stock amounting to nearly 60 million francs. The principal centers of this industry were in the neighborhood of Opole in Upper Silesia, around Czenstochowa and Zawiercie, in the Kingdom of Poland. The trusts of western Austria systematically opposed the foundation of new factories in Galicia and so before the war, notwithstanding the great amount of raw material to be had in Galicia, there were only two cement factories, both of them in the neighborhood of Cracow.

Among other branches of mineral industry that developed was the **lime industry** in and around Opole, Czenstochowa, Kielce, and Opoczno; the pottery industry occupied a notable place in the Kingdom of Poland where there were many large earthenware, majolica and terra-cotta factories working almost exclusively for export.

Chemical industries, mostly adapted to the agricultural needs of the country, were also important, manufacturing chiefly artificial fertilizers. The annual production of this industry amounted to two hundred million francs. However, this industry could have reached a far greater degree of development if all the resources of the region could have been utilized; the coal beds in the mining district of Upper Silesia and Karwina-Orawa, and the salt

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beds, especially the **potasium salts** that are found in such **great abundance in Gálicia.**

Great chemical industries were connected, as auxiliary enterprises, with the coke and metallurgical factories of Upper Silesia. The production of these factories is included in the above table. Besides these, there were also thriving chemical industries in the Kingdom of Poland (in the neighborhood of Czenstochowa, Warsaw and of Lowicz, and in the mining districts of Dombrowa, and also in the Grand Duchy of Posen, (near Inowroclaw, Posen and Bydgoszcz).

In general, Polish industry was concentrated in several large industrial districts. The greatest of these was the Silesian-Polish district that included all of the Silesian-Polish coal basin, that is; parts of Upper Silesia, Cieszyn, Dombrowa and Cracow. Almost the entire mining and metallurgical production of the Polish countries developed in this district, as well as the mineral production of cement and lime. The textile production also developed here in the district of Dombrowa, at Sosnowiec, at Zawiercie, and at Siedlec and, before the war the metal industry was also important in this district.

The best proof of the wealth and great productive force of this industrial district is the 400,000 workingmen employed in the mining and metallurgical factories and in the manufactories. The value of the production may be approximately estimated at 2 billion francs a year.

The **district of Lodz** was the second in importance for industrial production and was the center of the great textile manufactories.

The district of Lodz, before the war, included

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the town of Lodz and the neighboring towns and villages of Pabianice, Zgierz, Ozorkow, Tomaszow-Rawski, Belchatow, Zdunska-Wola, Opatowek, Aleksandrow and even Kalisz. In this district there were industrial establishments for spinning, weaving and dyeing all kinds of textile products, principally cotton and wool, and to a lesser degree, linen, hemp and jute. Two hundred thousand workingmen were employed in these establishments and the annual production amounted to one billion francs.

Third in importance was the **district of Warsaw,** which included, besides Warsaw, the capital of Poland, a series of industrial centers, attached to it (Zyrardow and Marki, industrial villages near by Warsaw, and also the sugar refineries in the neighborhood of Kutno and Wloclawek). This district is of great importance to the economic life of Poland. There were sugar refineries and metal manufactories, garment and tannery industries concentrated at Warsaw. In this district also the textile industry was flourishing at Warsaw where there were at least a dozen textile factories. There was a great factory at Zyrardow for linen, cotton and wool products. This factory, by the way, was founded ninety years ago by the Polish Bank with the co-operation of the celebrated Philippe de Girard and, before the war, was the largest hosiery factory on the continent. There were also textile works at Marki.

Before the war the industrial district of Warsaw without counting the well developed dwelling-house industries employed about 200,000 workingmen with an annual production of a billion francs.

The **district of the Baltic** is the last one of the

important industrial centers of the Polish countries and includes the towns of Gdansk (Danzig), Krolewiec (Koenigsberg), Elbling and Pilawa. This district was especially a metal-manufacturing center. Before the war there were great workshops for the construction of ships, locomotives, railroad cars and steam engines, employing 50,000 workingmen having an annual production of 500 million francs.

Besides the principal industrial districts, there were also secondary centers such as: 1. **the sub-Carpathian district,** the oil-fields of Tustanowice-Boryslaw; 2. **the district of Lublin** where agricultural products are manufactured, (sugar refineries, flour mills) and where there are auxiliary agricultural industries such as the manufacture of farming implements; 3. **the district of Bialystok** with important textile and metallurgical manufactories, and finally 4. **the district of Great Poland,** (the Grand Duchy of Posen and West Prussia) of great extent and having chiefly agricultural industries: sugar refineries, alcohol distilleries, flour mills and tobacco factories.

Together these secondary districts employed more than one hundred thousand workingmen and had an annual production of about 500 million francs.

Such is a brief description of the development of industry in the Polish countries; a description tracing the evolution of the principal branches of industrial production in the different provinces of Poland, the distribution of the principal centers of industry and the internal structure of the industry. This description places in evidence the great productive capacity of Polish industry, proves its great

force of expansion and shows that in spite of all unfavorable conditions, in spite of the hostile economic and industrial policies of the sharing States that took into no account the economic needs of the Polish countries, in spite of existing defects in the different domains of social life, and above all, in spite of the non-existence of a national state organization, that before the outbreak of the war, there was a great and important development in Polish industrial organisms. All this proves conclusively that Poland, politically independent and having her own state organization, could fill an honorable place among the economic organisms of Europe.

Because the capacity of the industrial production in the Polish countries rests on a durable economic basis namely: the natural wealth of the country, and the great reserve of man-power. Moreover these countries have a powerful backbone: the Polish coal fields of Silesia.

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III.

THE POLISH-SILESIAN COAL FIELDS.

The backbone of the entire industrial organism of the Polish countries is the great Silesian coal basin.

These coal fields are situated in the southern and south-western part of Poland, almost entirely on Polish territory. Before the war this whole territory, amounting to about 6,000 square kilometers (3,750 sq. miles), was divided among the sharing States. Of this territory, 3,200 square kilometers or 50% belonged to the Prussian part (so-called district of Upper Silesia); about 2,300 square kilometers or 40% to the Austrian part (so-called districts of Karwina-Ostrawa and Cracow) and 500 square kilometers only or less than 10% to the Russian part (district of Dombrowa) in the Kingdom of Poland. The Austrian part of this coal basin is made up of two unequal districts; the newer mining district of Cracow or Galicia takes in 1,300 square kilometers, while the older district of Karwina-Ostrawa, situated in Austrian Silesia, and the zone bordering upon Moravia, takes in 1,000 square kilometers. It should be noticed here, that the southern and eastern boundaries of the Silesian-Polish coal fields have not yet been determined and different indications show that

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they are of great extent. Their real size and wealth could only be ascertained by a thorough survey.

The Silesian-Polish coal field belongs to the richest of the world, according to the calculations of Polish and German geologists. These Polish coal beds, to the depth of 1,000 meters, contain approximately 100 billion tons of coal of which 55 billions are in Upper Silesia, 24 billions in the district of Cracow, 16 billions in the district of Karwina-Ostrawa, and 5 billions in the district of Dombrowa. So, if the annual production of recent years (62 millions in 1913) is taken as a basis, this reserve can last for fifteen hundred years, and, even in the case of increased exploitation, for one thousand years at least. It will be recalled that according to estimates made by the geologist, Wroclaw Fr. Frech, the reserve of coal in England is sufficient for 250 or 300 years, in Germany (Polish basin) for 700 or 800 years, in Belgium for 800 years and in the other less important coal fields of Europe for 200 or 300 years at most.

The Silesian-Polish coal fields compare favorably with the other European coal fields by the simplicity of their geological structure, by the wealth of the exploitable seams, and also by the exceptional thickness of the seams, that makes the output so much easier than in other coal fields of western Europe where the seams are thinner. Moreover, the Silesian-Polish coal fields contain great quantities of soft coal, suitable for the production of metallurgical coke. Thus, the Silesian-Polish coal fields make a powerful foundation for the development of industry, not only of the metallurgical but of the chemical industry which could also

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be fed by the secondary products obtained from coal distillation.

There was a very rapid development in the output of coal in the Silesian-Polish basin until the beginning of the war. During the last twenty-five years, especially the fourteen just preceding the war, 1900-13 inclusive, the output was so great that it placed Polish coal production in one of the first places among the coal producing countries of Europe. Table III gives the Polish coal production during this period of years.

Table III. — Output of the Polish coal fields, (metric tons).

Year	District of Upper-Silesia	District of Karwina-Ostrawa	District of Dombrowa	District of Cracow	Totals
1890	16,862,876	4,229,600	2,584,612	609,647	24,286,735
1895	18,063,906	4,717,264	3,681,663	753,320	27,216,143
1900	24,815,041	5,772,601	4,014,079	1,166,633	35,768,354
1901	25,251,625	6,344,395	4,140,439	987,854	36,724,313
1902	24,470,788	5,940,535	4,232,287	864,853	35,508,463
1903	25,235,649	6,097,275	4,747,812	815,532	36,896,268
1904	25,426,493	6,135,682	4,619,563	988,438	37,170,176
1905	27,003,420	6,440,300	3,507,936	1,118,201	38,069,857
1906	29,653,528	6,886,969	4,550,946	8,303,686	49,395,129
1907	32,221,971	7,057,621	5,318,707	1,366,896	45,965,195
1908	32,958,356	7,344,349	5,520,971	1,276,259	47,099,935
1909	34,656,638	7,636,574	5,584,183	1,162,434	49,039,829
1910	34,446,094	7,675,949	5,468,763	8,357,513	55,948,319
1911	36,622,969	8,073,713	5,769,928	1,653,724	52,120,334
1912	41,543,442	8,769,782	6,315,430	1,922,210	58,550,864
1913	43,801,056	9,376,513	6,833,587	1,970,705	61,981,861

As this table shows, during twenty-five years, from 1890 do 1913 inclusive, the output of coal in the Silesian Polish basin increased from 24 million to nearly 62 million tons, an augmentation

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of 150%. The lowest relative increase occurred in the district of Karwina-Ostrawa where it was only 125%. The greatest increase was in the district of Cracow where it reached 217%. But, in the actual output of coal, the large district of Cracow, so rich in coal, came last because of the harmful Austrian mining policy, that favored giving the mining concessions to foreign contractors and speculators, who found it to their advantage not to begin working the mines in their possessions. The development in the output of coal in the districts of Upper Silesia and Dombrowa progressed uniformly, being 170% for the last twenty-five years.

Table III which gives the output of coal in the Silesian-Polish basin and its distribution according to the several centers of the district, shows conclusively the predominance of the Upper Silesian district which alone produced two-thirds of the entire coal output of the basin. Because that part of the Silesian-Polish coal basin which is within the Prussian boundaries is not only the richest and largest, but is also the best developed.

The output of coal in the entire Silesian-Polish basin increased steadly from year to year, until in 1913 it reached nearly 62 million tons. **Thus the Silesian-Polish coal basin occupied a very important place in the world's production and was also one of the greatest centers of coal production.**

Table IV shows Poland's place in the coal output of Europe.

This table shows that, in the output of coal in Europe before the war, the Polish countries were surpassed only by England and Germany.

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Table IV. — Coal output of different European States (metric tons)

Year	England	Germany	Poland	France	Belgium	Russia	Austria-Hungary
1900	228,784,000	84,475,000	35,768,000	32,722,000	23,463,000	11,600,000	5,500,000
1901	219,080,000	83,287,000	36,715,000	31,634,000	22,213,000	11,900,000	5,772,000
1902	230,650,000	83,003,000	35,508,000	29,365,000	22,877,000	11,700,000	5,404,000
1903	234,203,000	91,403,000	36,896,000	34,217,000	23,797,000	12,600,000	5,820,000
1904	236,100,000	95,390,000	37,170,000	33,502,000	22,761,000	14,500,000	5,900,000
1905	239,750,000	94,296,000	38,070,000	35,218,000	21,755,000	14,600,000	6,115,000
1906	255,000,000	107,465,000	42,395,000	33,458,000	23,570,000	16,700,000	6,520,000
1907	271,800,000	110,964,000	45,965,000	35,989,000	23,705,000	20,400,000	6,700,000
1908	265,630,000	114,713,000	48,097,000	36,633,000	23,558,000	19,100,000	6,466,000
1909	267,850,000	114,131,000	49,040,000	37,116,000	23,518,000	18,500,000	6,312,000
1910	268,450,000	118,382,000	48,948,000	37,635,000	23,917,000	18,800,000	6,043,000
1911	276,130,000	124,125,000	52,120,000	38,644,000	23,053,000	20,400,000	5,942,000
1912	264,420,000	133,338,000	58,551,000	40,394,000	22,972,000	21,000,000	6,396,000

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A more significant fact is that, **during the period from 1900 up to the war, the production of the Silesian-Polish coal fields showed the greatest acceleration of productivity in Europe, excepting only Russia.** In fact, the output of coal in Poland during this period increased about 70%; in England only from 16 to 20%; in Germany 50 to 60%; in France 22 to 25%; in Austria only 15%; while in Belgium it remained about stationary. Only in Russia was the increase greater, being 81%. Besides, the Silesian-Polish coal fields are still far from having reached their culminating point and can, under economic and political conditions favorable to Poland, accelerate even more the already remarkable rapidity of their development. **These coal fields then, from the unmistakable evidence of the figures in table IV, make a powerful foundation for the whole organism of Polish industrial production.**

The Silesian-Polish coal basin that contains in the districts of Upper Silesia and Karwina-Ostrawa much valuable soft coal **is one of the most important centers of coke production in Europe.** Soft coal is found in Upper Silesia (district of Upper Silesia) and in Silesia of Cieszyn (district of Karwina-Ostrawa). In Russian Poland beds of soft coal, fit for coke distillation, have not yet been found, but in Galicia (district of Cracow) there are beds of soft coal that have not yet been worked. This is one of the reasons for the small development in the output of fuel in this large and rich part of the Polish-Silesian basin, and yet, although the rich deposits of soft coal are insufficiently exploited, still coke production in the Polish countries, that is to say, in the Silesian-Polish basin, has become

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most important. During the last twenty-five years, especially during the last fourteen years from 1900-1913 inclusive, the coke production in the Silesian-Polish coal fields was as follows.

Table V. — Production of coke (metric tons).

Year	District of Upper Silesia	District of Karwina-Ostrawa	Totals
1890	987,950	587,313	1,575,263
1895	1,029,485	650,873	1,680,358
1900	1,306,557	1,145,222	2,451,779
1901	1,168,472	1,208,768	2,377,240
1902	1,095,468	1,100,320	2,195,788
1903	1,139,160	1,108,544	2,247,704
1904	1,270,793	1,219,435	2,490,228
1905	1,327,335	1,331,807	2,659,142
1906	1,471,530	1,605,832	3,077,362
1907	1,514,062	1,772,736	3,286,798
1908	1,564,798	1,780,576	3,345,374
1909	1,493,170	1,896,924	3,390,094
1910	1,523,966	1,913,285	3,437,251
1911	1,723,226	1,975,243	3,698,469
1912	1,939,619	2,225,335	4,164,954
1913	2,055,582	2,500,000	4,555,582

This table shows that during the last twenty-five years, (especially 1900-13) the coke production of the Silesian-Polish coal fields increased greatly. The most rapid increase was in the district of Karwina-Ostrawa, where, during this given period, the output of the coke furnaces increased 325%. During the same period the increase in the output of the Upper Silesian furnaces was only 108%, while for the same period the total coke production of the entire Silesian-Polish basin increased 190%.

The development of the coke production in the Silesian-Polish basin has been retarded partly by

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the prohibitive Russian tariffs, that hindered by high custom duties, the importation of coke into the Kingdom of Poland, and partly by the policies (protected by the government) of the Austrian trusts that prevented the establishment of iron and steel works in Galicia. There is no doubt, however, that the reserve of soft coal in the Polish-Silesian basin, as well as the producing capacity of the coke factories there, will not only be enough for the needs of the iron and steel works already existing in the country but that there will also be enough to meet the demands of Polish manufacturers even in the remote future. Thus the steel and iron production which plays such a role in all producing and industrial organisms is not only assured in Poland but disposes of a very important factor of development.

To sum up, the Silesian-Polish coal basin, being one of the richest in all Europe, constitutes a reserve of heat energy from which the economic and industrial organisms of Poland and of all the adjacent countries will draw their strength. It constitutes one of the principal conditions of existence for the progressing industry of the country. It is also one of the principal factors of the future growth of Polish industrial production and one of the most important guarantees that Poland as a state, politically independent, will also be economically independent, at least to the same degree as the States of western Europe which have reached a high level of economic development.

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IV.

THE NATURAL WEALTH OF POLAND.

Beside the immensely rich Silesian-Polish coal fields, there is other important mineral wealth in Poland that will add to the development of her future industries and to her economic independence.

The second place in the mineral wealth of Poland is occupied by lead and zinc, also very important in economic life, that are not only connected by their origin but very often appear together. The richest beds of lead and zinc are found in Upper Silesia (the carbonate of zinc and the sulfide of zinc) where the output is 90% of the whole production of Poland. Other mines of these metals are found in the Kingdom of Poland near Olkusz, and also in Galicia near Cracow. In Austrian Silesia the output of lead and zinc, up to the present time, has been insignificant. It must be noted here that a more exact valuation of the zinc and lead ore is impossible but it is certain that there is a considerable amount.

Table VI gives the output of zinc and lead in the Polish countries for the period of twenty-five years from 1890 until the outbreak of the war, (especially for the period 1910-13).

This table shows that the output of zinc and lead during this period fluctuated between 650 and 700 thousand tons. **Thus in the production of lead**

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Table VI. — Ores of zinc and of lead extracted (metric tons).

Year	Upper Silesia	Kingdom of Poland	Galicia	Totals
1890	676,150	" "	17,658	693,808
1895	582,987	56,150	10,494	649,631
1900	576,305	49,441	10,070	635,816
1901	573,240	57,315	8,130	638,685
1902	629,927	67,261	7,548	704,736
1903	614,966	74,969	12,073	702,008
1904	653,159	101,588	10,325	765,072
1905	666,144	99,437	9,381	774,962
1906	633,593	68,919	5,863	708,375
1907	633,610	62,040	9,032	704,682
1908	646,524	63,532	7,951	718,007
1909	664,202	52,165	7,335	723,702*)
1910	591,475	58,980	8,161	658,616*)
1911	552,449	55,051	6,811	614,311*)
1912	583,503	59,568	8,873	651,944*)

and zinc, the Polish countries occupied the first place in Europe, being only surpassed in the whole world by the United States of America. The relation of the output of zinc to that of lead was as eight to two; in other words, for this given period, 520 to 560 thousand tons of zinc ore and 130 to 140 thousand tons of lead ore per year.

As a result of the relatively important production of zinc and lead in the Polish countries, the metallurgical industry has been greatly developed; before the war there were factories in Upper Silesia, in the Kingdom of Poland near Olkusz and Bendzin and also in Galicia near Cracow. The output of lead ore from Olkusz and the mines near Cracow

*) In the Silesian district of Cieszyn the numbers of tons of zinc and lead ores extracted during the years 1909 to 1912 were respectively: 50, 15, 60 and 70.

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was sent as raw material to the factories in Upper Silesia where it was melted into lead.

Thus the production of raw zinc and lead, especially zinc, in the Polish countries, equaled that of Belgium which, before the war, occupied the first place in Europe and the second place in the world after the United States. In table VII and VIII the figures show the development of the production of zinc and lead in Poland during the last twenty-five years.

Table VII. — Production of zinc (metric tons).

Year	Upper Silesia	Kingdom of Poland	Galicia	Totals
1890	88,699	3,776	2,173	99,648
1895	95,430	5,034	2,526	102,990
1900	102,213	5,967	3,365	111,545
1901	107,967	6,109	3,683	117,759
1902	116,979	8,271	4,898	130,148
1903	118,522	9,902	5,518	133,942
1904	126,493	10,612	5,770	142,875
1905	129,013	7,638	6,550	143,201
1906	135,970	9,380	7,526	152,876
1907	137,736	9,392	8,302	155,430
1908	141,461	8,841	9,721	160,023
1909	139,255	7,947	8,358	155,560
1910	139,733	8,638	8,866	157,237
1911	155,628	9,937	11,878	177,443
1912	168,496	8,764	13,222	190,482
1913	169,439	7,608	13,850	190,897

These figures show that there was an immense development in the production of zinc ore in Poland. After the Belgian production, that of Poland is the most important in Europe and third in importance in the world, furnishing more than 21% of the entire production of the world. From the point of view of lead production, the Polish countries also occupied an important though not predominant

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place among the world producers of lead. The position of the Polish lead metallurgical industry is prominent. In the production of lead in Europe before the war, Poland was only surpassed by Spain, Germany and Belgium. Thus, the wealth of zinc and lead in Poland is yet another important factor in the economic independence and industrial development of Poland.

In economic value, iron-ore is known to occupy the second place after coal. Iron-ore is found in different parts of the Polish countries and over large areas. A valuation of the reserve of iron-ore, even approximate, is difficult, because of the lack of suf-

Table VIII. — Production of lead (metric tons).

Year	Totals	Year	Totals
1890	19,622	1906	38,372
1895	20,017	1907	32,937
1900	24,925	1908	38,381
1901	22,733	1909	37,360
1902	30,209	1910	41,261
1903	42,191	1911	41,811
1904	39,795	1912	41,313
1905	50,973	1913	39,922

ficient data, but it is estimated that the reserve of iron-ore in the Kingdom of Poland is from 300 to 350 million tons, containing from 120 to 140 million tons of iron metal. There is about the same quantity of iron-ore in Upper Silesia. There is none at all in Silesia of Cieszyn and very little in Galicia, but as there has never been a thorough geological survey made of the Kingdom of Poland and Galicia, it is probable that the approximate estimation of between 700 and 800 million tons is far too low.

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There are four principal centers where iron-ore is found in Poland: 1st in Upper Silesia, in the Silesian-Polish coal basin; 2nd to the south and northwest of Czenstochowa, 3rd in the government of Radom, in the neighborhood of the Holy Cross Mountains, 4th south of Kalisz where, during recent years, important beds have been found.

Table IX. — Iron ores extracted (metric tons).

Year	Upper Silesia	Kingdom of Poland	Galicia	Totals
1890	758,000	229,000	9,500	996,500
1900	407,000	484,000	" "	891,000
1905	315,000	300,000	8,100	623,100
1910	234,000	173,000	4,200	411,200
1912	165,000	120,000	16,000	301,000

Table IX gives the relative figures of the output of iron-ore in Poland.

This table shows that during the course of the last twenty-five years, before the war, the output of iron-ore steadly diminished. There were several reasons for this.

In Upper Silesia, the decrease in the output was caused by the exhaustion of the seams. In the Kingdom of Poland, by the growing competition of the rich metallic ore from southern Russia, while in Kalisz and other districts the exploitation of the mines was hindered by the inadequate system of railroads.

In spite of the decrease in the output of the iron-ore mines; in spite of the fact that Polish ore only contains, (on an average 15 to 30%), at most

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40% of pure metal, the production of pig-iron in Poland developed considerably during the last twenty-five years because Poland possessed the soft coal so important in the manufacture of iron.

As there was not enough native ore to supply the demands of the iron and steel manufacturers established in Poland, great quantities were imported from Sweden, Hungary and Central Russia. During the last twelve years the metallurgical industry of Poland was based on the importation of rich foreign ore. But, before the war, Germany, Belgium and England also, used great quantities of rich imported ore in their metallurgical industries. Thus the situation of the iron industry in Poland was no worse than in the States of Western Europe having the greatest industrial development.

The production of pig-iron in the Polish countries developed greatly, especially in Upper Silesia and in the Kingdom of Poland. But this industry is not yet established in Galicia, principally because of the strong opposition of the powerful Austrian iron trusts. In Silesia of Cieszyn there is only one factory, near the town of Cieszyn, which has an unimportant yearly output.

Table X. shows the development of the production of pig-iron during the last twenty-five years.

During this given period the production of pig-iron in the Polish countries increased from 100 to 125%.

In the Kingdom of Poland there was a remarkable increase in the number of blast furnaces, and for this given period the increase in iron production was 230%. The increase in Upper Silesia for this period was less — 100 to 110%.

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The development of the Polish production of pig-iron was subject to a series of harmful, economic and political influences; protection by the Russian government of the importation of iron-ores from southern Russia to the market of the Kingdom of Poland, duties levied on coke imported to the metallurgical factories of Russian Poland from Upper Silesia of Cieszym; government boycott of the products of Polish iron and steel works; the opposi-

Table X. — Production of iron (metric tons).

Year	Upper Silesia	Kingdom of Poland	Totals
1890	507,000	127,000	634,000
1895	532,000	190,000	722,000
1900	744,000	301,000	1,045,000
1901	641,000	324,000	965,000
1902	685,000	283,000	968,000
1903	748,000	306,000	1,054,000
1904	826,000	374,000	1,200,000
1905	861,000	252,000	1,113,000
1906	901,000	303,000	1,204,000
1907	939,000	283,000	1,222,000
1908	928,000	210,000	1,138,000
1909	850,000	216,000	1,066,000
1910	901,000	251,000	1,152,000
1911	963,000	347,000	1,310,000
1912	1,048,000	393,000	1,441,000
1913	995,000	419,000	1,414,000

tion of the powerful iron and steel trusts of Austria to the establishment of manufactories in Galicia; the absolute closing of this important market to the products of the steel and iron works of the other parts of Poland; lastly, the small consumption of pig-iron in the Polish home market, which is one of the results of the economic policy of the sharing States that do not take into account the economic

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needs or interests of the Polish countries. However, notwithstanding all these unfavorable influences, the development in the production of pig-iron in the Polish countries has been serious. Before the war, Poland occupied an average place among the European producers of this metal, so necessary to economic life.

If a fundamental change in the political and economical conditions of Poland could take place, the metallurgical industry based upon a larger home market would certainly develop greatly. This has had up to the present time a relatively small capacity (the annual use of iron per head in the Polish countries has been unimportant, only about 20 kilograms). A modification in the general situation would surely accelerate the consumption of iron, while the capacity of the home market would be increased and would contribute to the intense development of the production. Iron, it must be remembered is found in Poland under conditions quite as favorable for development, (especially that, which concerns the elements of the production itself) as in the most favored countries of Western Europe.

Petroleum occupies an important place in the mineral wealth of the Polish countries. It is found only in Galicia, and up to the present time has been the principal mineral utilized there. The Galician oil-wells extend almost the whole length of the northern Sub-Carpathian Zone, from Gorlice (Western Galicia) to the Bukowina boundary.

The principal centre of the production of petroleum in Galicia was in the neighborhood of Borysław (Eastern Galicia) where there is an enormous

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reserve of oil and where, before the war, the production was 95% of the whole Galician crude-oil output. Another big centre, though far less important, is at Krosno where the output has recently been about 5% of the total production in Galicia.

The production of petroleum in Galicia is comparatively a new branch of the mining industry. Its origin goes back to the fifties of the last century. It was then that small quantities of petroleum began to be obtained in the neighborhood of Gorlice, (in the west) and around Kolomea (in the east). The industry did not develop to any extent until the rich fields around Boryslaw were discovered and the Canadian system of sinking wells was adopted (1884). Later the system was perfected (called the Galician system) and it became possible to sink wells to the depth of 1,500 and even 2,000 meters. **Galicia has become one of the greatest and most important producers of petroleum in the world.** Although less important than the great American and Russian (Caucasus) productions, still her role is considerable, especially in Europe as Table XI shows.

These figures show that the Polish petroleum production concentrated in Galicia occupies an honorable place in the European market. The importance of the Polish oil industry is increased by the close proximity of Galicia (in the very center of Europe we may say) to the great economically developed continental States that consume such quantities of refined petroleum and other hydrocarbons mixed with petroleum such as benzine, heavy oils, naphtha and the heavy oil by-products.

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It is difficult to estimate the reserve of the Galician oil-wells but there is no doubt that it is very important, as the petroleum zone is several hundred kilometers in length, and, before the war, new springs were continually discovered. Upon

Table XI. — Production of petroleum (metric tons).

Year	United States	Russia	Dutch Indies	Poland	Roumania	India
1890	6,003,000	3,631,000		92,000	42,000	15,000
1895	6,929,000	6,509,000	133,000	215,000	76,000	49,000
1900	8,334,000	9,927,000	425,000	326,000	250,000	141,000
1901	9,090,000	11,157,000	652,000	452,000	270,000	187,000
1902	11,629,000	10,551,000	800,000	576,000	310,000	212,000
1903	13,160,000	9,902,000	870,000	727,000	384,000	329,000
1904	16,085,000	10,742,000	1,036,000	827,000	504,000	473,000
1905	18,647,000	7,499,000	1,158,000	801,000	639,000	579,000
1906	17,416,000	8,036,000	1,188,000	760,000	890,000	562,000
1907	22,845,000	8,443,000	1,178,000	1,170,000	1,151,000	608,000
1908	24,575,000	8,582,000	1,143,000	1,718,000	1,150,000	706,000
1909	25,093,000	9,112,000	1,736,000	2,086,000	1,293,000	934,000
1910	28,969,000	9,367,000	1,881,000	1,761,000	1,345,000	859,000
1911	28,977,000	9,147,000	1,670,000	1,462,000	1,545,000	902,000
1912	29,664,000	9,263,000	1,520,000	1,187,000	1,806,000	900,000

the authority of the Polish geologist Szajnocha, professor at the University of Cracow, a very conservative estimate would allow a reserve of 300 million tons of crude-oil. It is also estimated that the Polish petroleum production will not only remain for many years to come at the present high level, but that it will become even greater, reaching a higher place on the world market and increasing its value as a powerful factor, in the independent economic development of Poland.

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Another source of mineral wealth in Poland is Salt.

The great salt mines of Poland have been celebrated for centuries.

Beds of rock salt are found in western Galicia, in the neighborhood of Wieliczka and Bochnia and in the Grand Duchy of Posen near Inowroclaw. In recent years extensive new beds of rock salt have been discovered in the southern part of Upper Silesia near Pszczyna. Besides these rich beds of kitchen salt there are many salt springs in the Polish countries from which the salt is extracted in factories. Before the war, there were nine of these salt factories in Galicia, mostly in the eastern part. At Ciechocinek in the Kingdom of Poland, there was one medium-sized salt factory. In Prussian Poland at Inowroclaw there was a factory and a mine, but of little importance. Potasium salts, so important to agriculture as artificial fertilizers, were also exploited to a small extent, before the war.

Table XII gives the relative figures of the production of rock and factory salt in Poland during the last twenty-four years.

Table XII. — Production of salt (metric tons).

Year	Galicia	Grand Duchy of Posen	Kingdom of Poland	Totals
1890	128,000	40,000	3,000	171,000
1900	135,000	53,000	3,000	191,000
1905	176,000	30,000	3,500	209,500
1910	156,000	33,000	3,000	192,000
1912	170,000	32,000	4,000	206,000

Thus, during recent years, the production of salt only amounted to about 200,000 tons a year.

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This small output, considering the great amount of salt in Poland, was due to the fact that from Galicia the salt could not be sent into the Kingdom of Poland because of the prohibitive tariffs. Thus chemical industry could not develop in the Kingdom of Poland because of the lack of salt which is one of the important raw materials, while in Galicia the chemical industry was checked by the same causes that hindered the general industrial development of that province.

The great salt wealth of Galicia, Upper Silesia and Posnania (it must be remembered that from the point of view of their mineral wealth the Polish countries have not yet been sufficiently studied) can become one of the foundations for a brilliant development of the chemical industry and must be considered as one of the important factors of the independent economic existence of Poland.

There are also somewhat important beds of raw-material minerals of secondary order that have great value, either for the pottery industry (different clays, refractory and common); for the chemical industry (phosphorite, sulphur and mineral wax) or for building stone, without speaking of the great wealth of turf and lignite that also have an economic value.

Besides the great mineral wealth, the Polish countries have other natural wealth of immense importance for industrial development; the immense forests that already before the war served as a basis for the wood industry and provided for its future; great tracts of land adapted to the cultivation of beets favored the development of the Polish sugar industry, which as has been remarked,

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occupied one of the principal places in Europe before the war; also great tracts of land suitable for the cultivation of flax and hemp constituted an important factor in the future development of the textile industry, based on these raw materials.

To sum up, the great natural wealth with which the Polish countries have been so generously endowed, both in quantity and quality, constitute one of the decisive factors of the economic independence of Poland. The economic territory of Poland equals, in this regard, the countries of Europe that, before the war, were considered economically independent and that really were independent, within the limits assigned by the world standard of economic life in the states and countries of Europe.

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V.

THE POLISH COUNTRIES AS A RESERVOIR OF LABOR.

The Polish countries, before the war, were a huge reservoir of human energy. The reserve and constant growth of this energy considerably exceeded the demand for labor. The result was that each year great numbers of Poles emigrated from their native land. Some of them going for short periods into western Europe, especially Germany, formed the great Polish seasonal emigration. Others going for a longer time, often forever when they crossed the seas. During the last twelve years the Polish emigration to America reached the enermous figure of almost four million. These Poles are employed chiefly in industry in North America and in agriculture in South America.

This one fact, that Poland occupies one of the first places among the countries of great peasant and labor emigration, proves that the economic development of the country is insufficient. Economic industry could not prosper, notwithstanding the great natural wealth and the favorable geographical situation of the country in the center of Europe, because of the unfavorable conditions caused by the economic and political policies of the sharing States. It also proves indisputably that the Polish countries have a great reserve of human force, which under favorable conditions — to be explicit — in a Poland politically and economically independent,

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could be utilized at home, and would contribute to the growth of industry, commerce and agriculture, in a word, to the entire producing organism of the country.

The Polish countries are among the most densely populated countries of Europe. In certain districts of Poland, the population is perhaps as dense as anywhere in Europe.

Figures derived from the Austrian and German census for 1910 and from calculations made to reduce to the same date the older Russian data, of the population of ethnographical Poland and of the territories belonging economically to it, are given in Table XIII[1]).

Table XIII. — Area and population.

Provinces	Area sq. kilom.	Population	Inhabitants p. sq. kilom.
Russian Poland:			
Kingdom of Poland.....	128,326	12,476,000	101
Lithuania & White Russia	304,356	12,709,000	42
Ukraina	165,000	12,337,000	75
Austrian Poland:			
Galicia	78,497	8,026,000	102
Silesia of Cieszyn	2,222	435,000	196
Prussian Poland:			
Upper Silesia	13,230	2,208,000	167
Grand Duchy of Posen...	28,989	2,100,000	72
West Prussia	25,553	1,703,000	67
East Prussia	38,724	2,064,000	53

1) Of the provinces included in table XIII, that were parts of the ancient Polish Republic, the parts that are ethnographically Polish, are made up of the Kingdom of Poland. Western Galicia and the greater part of Central Galicia, Silesia of Cieszyn and by almost all of Prussian Poland, except the narrow districts near to Pomerania, Prussian Silesia and the north-eastern part of East Prussia.

But that which is decisive here is the fact that with the exception of a part of White Russia and Ruthenia, all the territory included in this table is economically Polish. The boundaries though ethnographically weak, are solidly joined to the central mass and form with it economic Poland.

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According to this table the economic territory of Poland includes, grosso-modo, besides all of Prussian Poland, Austrian Poland, and the Kingdom of Poland, the provinces of Wilno, Kowno, Volhynia and almost all of Podolia, that is to say, a territory covering an area of 545,00 square kilometers, peopled by 42 million inhabitants — being 77 people to a square kilometer.

So, by the extent of territory within her economic boundaries, Poland is larger than the German Empire before the war, larger than France and only exceeded by European Russia and Austria-Hungary. The population was exceeded only by that of Russia, the German Empire, Austria-Hungary and England. For density of population she follows after Belgium, England, Italy and Germany.

The place of the Polish countries, taken within their economic boundaries, among the principal European States for area, number and density of population is shown in table XIV.

Table XIV. Area and population.

Countries	Area sq. kilom.	Population	Inhabitants p. sq. kilom.
European Russia	4,816,000	93,400,000	20
Germany	540,000	65,000,000	120
Austria-Hungary	676,000	51,000,000	76
Great Britain ..	314,000	45,000,000	144
Poland	545,000	42,000,000	77
France	536,000	40,000,000	73
Italy..	287,000	35,000,000	121
Belgium..	29,455	3,700,000	252

The density of the population in the Polish countries (77 inhabitants per square kilometer) is high, because a great part of Poland is agricultural,

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having great landed estates which, as is well known, always have an unfavorable influence on the progress of the density of population.

This relatively high density of population is due chiefly to the extraordinary density of the population in the industrially developed parts of Poland. Thus, the average population of the Kingdom of Poland, during recent years, was more than 101 inhabitants per square kilometer. In Piotrkow, the most industrial government, there were 171, in the government of Warsaw 151, in Kalisz 113, in Kielce 103, in Silesia of Cieszyn 196 and in Upper Silesia 167 inhabitants per square kilometer. Thus the density of population in the industrial districts of Poland compares favorably with the most developed industrial countries of Europe.

The great strength of Poland, as a reservoir of human force, is shown by the fact that up to the present, she has had the highest natural increase in population (higher birth than death rate). According to Dr. Josef Busek, Professor at the University of Lwow, the annual excess of births per 10,000 inhabitants during the period 1900—1911, in the government of Volhynia was 199, in the Grand Duchy of Posen and in Upper Silesia 197, in West Prussia 181, in Silesia of Cieszyn 149, in the government of Podolia 180, in the Kingdom of Poland 147, in Galicia 146, in East Prussia 123. In the government of Kowno the figure is 73. This is the only district where the figure falls below 100 — the lowest figure for Europe.

Poland thus leads in the increase in population. The average figure of the natural increase in population in Europe, during the last ten years, is

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about 150 per 10,000 inhabitants. Researches made on the influence of social, economic, cultural and confessional factors that determine this great increase in population, make it possible to state without exaggeration that **during the next ten years Poland will have a greater increase than any other country in Europe, excepting, perhaps, Russia.**

Thus, the Polish countries, within their economic boundaries, constitute a powerful reservoir of human energy that differs from the other labor reservoirs of Europe by its much more rapid and important growth.

The continued growth of the population and the yearly increase of available labor, has, unfortunately not been accompanied by a like expansion of producing enterprises. The development of industry of agricultural products, progressed much less rapidly and as a result the work market was always overstocked. Offers considerably exceeding the demand forced the continual emigration of the workingmen. The result was that the Polish economic emigration into the countries of the old and new world grew more and more extensively.

The economic emigration of the Polish countries took two forms: the continental **seasonal emigration** which was composed almost entirely of farm laborers; and the **permanent overseas emigration** composed of mechanics and industial workingmen together with great numbers of men without special training who took with them to North or South America only their health and their strength. The Polish emigration, both seasonal and permanent, increased greatly during recent years.

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The seasonal emigration included a great number of workingmen who went into western Europe—Germany especially — for a certain period, usually the farming season. During the last ten years this emigration has grown steadily greater until in the years just before the war, there were ever increasing numbers of Polish workingmen to be found in Belgium, France, Sweden, Denmark, Norway and Switzerland.

However, the principal seasonal emigration was always toward Germany, where each spring crowds of workingmen and girls went in search of work.

It is impossible to have an accurate figure concerning this emigration but according to the figures of the central Prussian office of farm laborers[1]) the following table gives the number of workingmen having passed the frontier bureaus.

Years	Kingdom of Poland	Galicia	Total
1907-8	210,045	139,953	349,998
1908-9	212,239	149,676	361,915
1909-10	239,879	165,403	405,282
1910-11	253,143	160,285	413,428
1911-12	281,813	153,762	435,575
1912-13	285,829	166,474	452,303

1) The German-Central office for farm laborers (Deutsche Feldarbeiterzentralstelle) with the central office at Berlin, was founded about eleven years ago by a group of German Political Associations in agreement with certain German agricultural circles, for the purpose of economically fighting the Poles. Later this Association became an Official Institution of the Prussian government and most of the other Federated States. It was given control of the seasonal laborers at the frontiers and authorized to deliver certificates to them, which gave them the right to look for work on German territory. It is impossible here to give all the activities, so harmful to the Polish emigration, of this Central Office and its branches on the frontiers. It is sufficient to note that the Prussian ministerial ordinances, as well as those of most of the other German States, gave over this immense crowd of emigrants into the hands of this Asso-

This table shows that the number of seasonal laborers from the Kingdom of Poland and Galicia (the greatest number being from these two parts of Poland) steadily increased until just before the war the figure reached at least half a million. These figures of the central office are always below the reality. Besides this, ever increasing numbers of the seasonal workingmen found work in German industrial enterprises. Thus the role and value of Polish emigration for German industry increased from year to year. The Polish seasonal emigration to other European countries was much less important and can be estimated at about 100,000.

According to the annual reports of the Commissioner General of Immigration for the Period 1902-1912, 1,030,000 Poles landed in North America, not including the many Hebrews, natives of the Polish countries and great numbers of Ruthenians. Table XVI gives the figures for the Polish emigration for the years 1900 to 1912.

In	1900	46,900	In	1907	138,000
,,	1901	43,600	,,	1908	68,100
,,	1902	69,600	,,	1909	77,500
,,	1903	82,300	,,	1910	128,300
,,	1904	67,700	,,	1911	71,488
,,	1905	102,400	,,	1912	85,100
,,	1906	95,800			

Very few Poles from Prussian Poland emigrate to America. They go mostly to the western provinces of Germany. They go to the powerful industrial centers of Westphalia, to the Rhine provinces,

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ciation and the German and Prussian agriculturalists. The moment the Polish workman had passed the frontier and received the certificate of the Central Office, he became the slave of the office and of the German farmer to whom the Office had sold him, in the liberal sense of the word.

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Berlin, Hamburg and into the industrial districts of the Saare. In the Westphalia-Rhinian district, before the war, there was a Polish population of from 450,000 to 500,000. In this region there are 150,000 Poles working in the coal district alone. These figures show the great infuence Polish emigration from Prussian Poland had on German industry. This industry developed in great part because of this wealth of human energy from Poland and again the development of this industry was the magnet that drew the Polish emigration toward those countries.

Thus, before the war, there were several million Polish industrial and agricultural laborers working in the countries of Europe, in North and South America. Poland, possessing together with Russia the greatest increase of population, was unfortunately so little developed economically that it could not furnish work for the mass of its people. This is why, together with Italy, she has become the principal source of emigration.

The expansion of national production alone will stop this abnormal phenomenon. The development of industry, of commerce, of ways of communication, the intensive utilizing of the country's great natural wealth, has for a condition the reconstruction of the Polish countries into a State organism: the establishment of a State, united and independent. This is the condition, sine qua non, of the development of the economic organism of Poland, of the enlarging of her national workshops, giving work to millions of her population who have until now been forced to search the world over for work and bread.

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VI.

THE RESERVES OF CAPITAL IN THE POLISH COUNTRIES.

Together with natural wealth and reserve of man-power, capital constitutes one of the fundamental factors of modern production. While discussing the conditions and elements of the economic independence of the Polish countries, the question of the reserve of capital to be found in Poland must not be neglected. The question of whether the indispensable capital needed for the extension of its economic organism is to be found in Poland must not be passed over in silence; of whether the work of past generations is condensed into a capital sufficient to utilize all of the natural wealth of the country. **It is an undeniable fact that the political, social and economic conditions under which the whole population of economic Poland, (no matter what nationality they were) has lived, during the whole of the nineteenth century and up to the beginning of the war, has been unfavorable to the accumulation of capital.**

The Polish countries, since the time of the partitions, have been systematically ruined, either by wars or by the policies of the sharing governments, in regard to them. The national wealth, that at the end of the eighteenth and the first half of the nineteenth century, was represented alone by the tillable land and by great landed estates, was ruined

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by the Kings of Prussia, by the Emperors of Austria and Russia. Frederick the Great, Frederic-William III, Joseph and Ferdinand of Austria, Catherine II, Paul, but more that all the others, Nicholas I ruined, although by different methods, the Polish inheritance. Each revolutionary movement, each discovered conspiracy brought new confiscations of immense wealth, most of it lost to Poland forever. Although the destruction of Polish property by violence has ceased during the last fifty or sixty years, still the sharing Governments have hindered the growth of capital in the Polish countries by their peculiar economic policies. The principal object of their policies has been to accelerate the accumulation of capital in the thoroughly German or thoroughly Russian parts, of Germany, of Austria or of Russia: Polish interests were either neglected or voluntarily sacrificed.

It is clear that under such particularly unfavorable conditions the growth of capital progressed slowly, that it remained far below what it would have been, if the collective life of Poland had developed normally, in the western and European sense of the word. Thus we see that the situation of Poland, regarding capital, was far less favorable than that of the western countries of Europe which had possessed, during long years, a well developed economic life, having all the advantages of the protection of their States, of their own governmental organizations.

Still one must not imagine that the Polish countries are entirely without that capital which is the result of the work of past generations. For even though it is impossible to calculate the exact amount

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of the reserve of capital, still some idea can be given of the development and state of Polish savings before the war, enough at least to partially judge the progress of its accumulation.

The largest and economically the most important result of the accumulation of savings in Poland is the evolution of the co-operative credit. The first distinctly co-operative societies were founded fifty or sixty years ago. It is only since 1900 however, that they have contributed in such a decisive way to the growth of savings, that their development has become important. That is to say, since they have included the population of the country as well as that of the cities[1]).

During the period between 1900 and the beginning of the war, the system of co-operative credit and savings societies in the Polish countries was greatly extended and an important capital added to their treasuries.

The figures in table XVII give a summary of

1) Before the war, the organization of savings in the Polish countries had no uniform character because in each part of Poland there were entirely different political, economic and judicial conditions. Thus in the Kingdom Poland, in Lithuania and in Ukraina there are besides the States savings bank, societies of mutual credit and of small credit societies and in the large industrial towns of the Kingdom of Poland manufacturers industrial credit associations. In Austrian Poland, in Galicia and in Silesia of Cieszyn, there are, besides the savings banks, a system of credit societies (system Schultze-Delitsch) and rural savings and credit societies, banks of the Raeffeisen system, patronized by the autonomous authorities. The system of co-operative credit societies, based exclusively on the Schultze-Delitsch system shows the greatest uniformity in Prussian Poland. Lack of space prevents my retracing the home development of the credit co-operatives in Poland. The most ample details of the Polish situation are found in a pamphlet published in French, in 1914, at the time of the International Agricultural Exposition at Lyon: "Les Societes co-operatives polonaises de Credit, leur developpement et leur etat actual dans los trois parties de la Pologne. Leopol, 1914".

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Table XVII. — Polish co-operative societies of savings and credit.

Year	Provinces	Number of co-operative Societies	Number of Members	Parts (francs)	Reserve (francs)	Deposits (francs)
1900	Kingdom of Poland	62	45,126	9,291,493	2,193,777	30,271,790
	Galicia	246	204,590	9,714,603	15,626,687	234,950,234
	Prussian Poland*)	118	49,477	8,160,612	3,163,568	50,507,916
	Totals:	426	299,193	27,166,708	20,984,032	315,729,940
1912	Kingdom of Poland	804	546,521	75,145,388	13,312,265	353,218,793
	Galicia	1,685	638,724	53,230,729	31,997,268	535,322,600
	Prussian Poland*)	214	134,149	30,521,744	15,868,783	326,856,247
	Totals:	2,703	1,319,394	158,897,861	61,178,316	1,215,397,640

*) Posnania, West Prussia and Upper Silessia; in East Prussia practically no Polish co-operative Societies of credit existed before the war.

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the development of the co-operative credits and savings societies in the Kingdom of Poland, in Galicia and in Prussian Poland for this period.

Only the Polish co-operative organizations in Galicia and Prussian Poland are included in this table. In Galicia there exists besides, in the eastern part especially, a system of Ruthenian co-operatives centralized into two distinct groups, conforming to the political differences between the Galician and Ruthenian populations. The development of the Ruthenian co-operative movement, before the war, was much less rapid than that of Poland. Still the savings brought together by the Ruthenian co-operatives reached a comparatively high figure and increased by several million francs the total sum entrusted by the Galicians to their savings institutions.

In Prussian Poland, besides the splendidly developed Polish co-operatives, there is also a German system which serves the German population of the country.

If the tables for Silesia of Cieszyn, Lithuania, for the Ukraine, (where the movement is weaker), and for the groups that operate separately because of political or nationalist reasons, should be added to the above tables, **it could be said, with sufficient probability, that at the beginning of the war the total deposits entrusted to the co-operative societies amounted to 2 billion francs.** This is an enormous sum when one takes into account the fact that this movement has been entirely developed since 1900.

Besides the close network of co-operatives that spread over the Polish countries and whose principal mission was to bring about systematic saving among

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the population, there were many other financial groups and institutions whose purpose, either directly or indirectly, was to accumulate capital, to draw into their banks the savings of the people.

In the Kingdom of Poland, in Lithuania, in White Ruthenia, in Podolia and in Volhynia, before the war, there were Russian savings banks, of little value to the national economy. Their principal aim was to supply the Russian State Treasury. In 1910 there were 5681 of these Russian savings banks in the Kingdom of Poland, in which more than 416,000 depositors had deposited about 212 million francs. In the six governments of Lithuania and White Ruthenia there were 688 savings banks having 526,000 depositors and 340 million francs, while in the three governments of the Ukraine (Volhynia, Podolia and Kief) there were 519 savings banks having 457,000 depositors and 232 million francs. **The total amount of savings deposited in Russian savings banks in 1910 was nearly 800 million francs of which nearly 600 million went into banks that were inside the economic territory of Poland.** In the Kingdom of Poland there were also 1350 **township savings banks whose united deposits amounted to seventy million francs.** These banks served chiefly the rural population, independently of the provincial co-operatives of savings and credit.

In Galicia and Silesia of Cieszyn there were branch establishments of the Austrian postal savings, which directed an important part of the savings of the Galician and Silesian population to Vienna, almost without profit to the economic life of Poland.

In **Prussian Poland,** from the official figures in

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1912, there were 271 public and private savings banks, having 1290 branch establishments in which 1,320,542 depositors had placed about 1,330,000,000 francs.

These different financial institutions, co-operatives, Communal and State banks are spread out over all the economic territory of Poland and have mostly served small capital. The business of these institutions came almost exclusively from the poorer population.

Because of these financial institutions, that had the confidence of the native population, the small capital amounted to about 4 billion francs — a very large sum when one bears in mind the conditions under which economic life in Poland had to be developed. The greater part of this sum could not be profitably employed for the country, nor with the same intensity that it would have been if the economic life of Poland had evolved under normal conditions. Independent of the accumulation of small capital by the above cited institutions, there developed likewise, during the last twenty-four years, an accumulation of medium and large capital in private stock exchange banks and in private banks. It is impossible to give an exact survey of this activity in Poland because the statistical data are either insufficient or too general. Of the different parts of Poland it was in the Kingdom that stock exchange banks prospered best. In 1912 there were seven of these banks in the Kingdom with a capital stock of about 210 million francs, and private deposits amounting to 280--300 million francs. This sum, of course, does not include the important sums deposited in the Warsaw and Lodz

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branches of the many Russian banks that drew the savings of the Polish population, nor the sums deposited in private banks among which there were many banking houses well-known in the financial world of Europe.

In Lithuania there are two stock exchange banks (banks of Wilno and Bialystock) having a capital stock of 14 million francs, with deposits, which at the end of 1912 amounted to about 90 million francs. There were also, before the war, many branches of the great Petrograd and Moscow banks in Lithuania. These banks secured the deposits of considerable sums from the richest inhabitants of the country but it is impossible to give the figures.

It can be estimated, however, that the great stock exchange banks, the more important private banks and the branches of the Russian banks operating in Russian Poland, in Lithuania and in the Ukraine had private capital amounting to more than 475 million francs.

The characteristic defects of the Austrian statistical publications make it impossible to give the activity of the stock exchange banks or of the important private banks of Galicia and Silesia. But aside from the six local stock exchange banks, there were, before the war, about fifteen branch establishments of Vienna and Prague, stock exchange banks whose principal aim was to draw the Galician savings into their home banks. They supplied the commerce and industry of western Austria and upheld the policies of the Austrian trusts that were so harmful to Galician interests. It can be estimated that the amount of medium and small private capital

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deposited in the banks of this part of Poland, was at least two hundred million francs.

Unfortunately, we have no data for Prussian Poland, worthy of confidence, from which it would be possible to estimate the amount of capital deposited in the stock exchange and private banks. But bringing to mind the great development of small savings in Prussian Poland, it may be taken for granted that the sum total of deposits in these banks is also important.

So the total figure for private deposits in banking institutions operating within the economic territory of Poland, may be estimated calculating prudently, at a billion francs at least.

We have retraced, as well as the insufficient and incomplete statistics will allow, the savings movement in the Polish countries constituting the economic territory of Poland. **Because of the developed co-operatives, because of the vigorous organization of savings,** there has been amassed in the different **financial institutions, existing in Poland, an important reserve of capital amounting to at least five billion francs.**

But it must not be imagined that all this sum could be used for the future development of the Polish economic organism. An important part of this capital is indispensable for the normal provisioning, daily one might say, of the already working organism. Only what is left from that can be given over to the future development of industry and commerce, ways of communication, of new work centers that will make it possible to put all the natural and human wealth of the country, up to its economic boundaries, to an economic use. Therefore, one of

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the principal tasks of the future economic policies of Poland will be the methodical and rational acquirement of foreign capital.

Certainly, the importation of foreign capital will involve a series of unfavorable consequences for the country, of which the principal one will be the necessity of giving up to foreigners a great part of the profits. But such is the fate or misfortune of economically backward countries, that are notwithstanding, endowed with favorable economic elements, that they cannot advance without the aid of outside capital.

Such was before, such will still be, after the war, the situation of the Polish countries. The action tending to draw foreign capital discloses an economic necessity.

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VII.

THE ECONOMIC BOUNDARIES OF POLAND

The economic territory of Poland extends much farther east and west than the ethnographical territory.

Although it is very difficult to fix the boundaries of the economic area of Poland (before the war, no study had been made of this question and the statistics are insufficient) still it is at least possible to attempt it grosso modo. In working this out, one must be guided by the unmistakable tendencies of the economic development of the Polish territory, keeping in mind the geographic and economic conditions and factors that still hold certain neighboring regions east and west of the ethnographical territory of Poland to the fundamental Polish body and that, taken together with it, make up the economic territory of Poland. A fundamental indication of this is furnished by the limits of the principal and permanent markets of Silesian-Polish coal. This coal comes from the Silesian-Polish coal basin that is the backbone of the whole producing organism of Poland, the only source of energy supplying Poland.

Of the different districts of the Silesian-Polish coal basin, those of Dombrowa, (in the Kingdom of Poland) and Cracow (in Galicia) are of local importance only. The output of the district of Dom-

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browa before the war, was used almost entirely in the Kingdom of Poland, 95% of the production, that increased yearly, was used by the industry and small consumers. Hardly 5% reached the outskirts of economic Poland; that is to Lithuania, White Ruthenia, Volhynia and Podolia.

Likewise, the output of coal in the district of Cracow was used entirely on the local markets, though in no wise supplying the demand, and it was because of the insufficient development of this coal district that Galicia was, before the war, one of the principal markets for the coal coming from the Upper Silesia and the Karwina-Ostrawa districts.

The extent of the market supplied by the district of Karwina-Ostrawa (in Silesia of Cieszyn and in the boundary zone of Moravia) was much larger. The output of this district not only supplied all the local industrial establishments but furnished at least 60% of the fuel used by the metallurgical industry in the Kingdom of Poland, besides sending great quantities into Galicia.

As the principal coal production center of Austria-Hungary, this district, as well, sent an immense amount of coal to Bohemia, Moravia, Hungary and Lower Austria, including the city of Vienna. Nevertheless, Galicia and the Kingdom of Poland were important and ever increasing markets for the coal district of Karwina-Ostrawa, and in like measure, this coal district has been of vast importance to the economic life of these parts of Poland.

The coal district of Upper Silesia, which is the largest and best developed part of the Silesian-Polish coal fields, supplied a very large market before the war. This district not only furnished coal to

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the Polish economical territory where its use was continually growing because of the industrial development of the country, but also exported great quantities to outside markets. On these supplementary markets they competed against lignite in Austria-Hungary, against English coal in the industrial districts of Berlin and Brandebourg, and against the coal of Westphalia and the Rhine provinces in different southern and western centers of the German Empire. All these markets, however, were only complementary. **It was the economic territory of Poland that made the principal market for the coal of the Upper Silesian district:** that part of Europe comprised between the Baltic and the Carpathians, the Odra, the Polesie and the Pinsk swamps.

A study of the railroad transportation statistics of coal going out of the district of Upper Silesia, does not show in detail the importance of the entire Silesian - Polish coal fields to economic Poland, nor gives us an exact outline of the economic boundaries. But such a study does show in a most striking manner that all of **that immense portion of the European continent, enclosed between the Baltic Sea and the Carpathians, between the Odra and the marshes of Pinsk, makes up an economic territory of one body,** — of which the only coal center, almost the sole origin of heat energy, are the Silesian-Polish coal fields. Outside of these general boundaries are the territories that make up the complementary markets for the Polish coal industry. Those markets do not depend wholly on the Polish coal center, but constitute grounds of rivalry between the Polish coal and that of Westphalia, England and Southern Russia.

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Table XVIII. — Coal export by railroads, in tons, from Upper Silesia to the different districts belong entirely or comprised to a great extent within the limits of the Polish economic territory.

Year	Total Export	I. Upper-Silesia Posnania N. and W. Prussia	II. Galicia	III. Kingdom of Poland	IV. Industrial districts of Wroclaw (Breslau) & Lignica	V. Pomerania	VI. Lithuania, White Ruthania, Wolhynia, Podolia & Ukraina	Total	p. c. of the total export
1890	11,821,666	3,855,334	252,644	192,950	2,569,110	386,444	1,006	7,257,488	61
1895	12,718,355	4,252,051	378,708	225,841	2,586,871	387,293	3,935	2,834,699	61
1900	17,888,301	6,289,157	523,609	874,522	2,848,958	746,639	26,566	11,309,451	63
1901	17,834,884	6,276,964	554,803	851,262	3,099,751	724,914	26,067	11,473,761	63
1902	17,323,475	6,500,875	594,091	619,824	2,791,331	673,367	9,072	11,188,560	63
1903	17,631,320	6,846,708	593,947	644,355	2,919,866	695,054	6,909	11,706,839	64
1904	17,579,576	6,498,585	593,947	625,485	2,887,621	778,173	5,028	11,388,839	63
1905	19,336,649	7,461,792	664,153	959,978	2,970,212	759,517	8,253	12,823,545	66
1906	21,348,215	8,232,108	834,906	916,506	3,120,279	833,032	70,482	14,007,313	66
1907	23,550,981	8,581,396	1,298,954	842,958	3,338,057	893,262	16,675	14,971,302	62
1908	24,716,332	9,338,713	1,550,087	827,229	3,420,880	913,876	15,531	16,066,316	61
1909	24,818,252	8,674,429	1,728,811	793,943	3,593,257	955,067	22,136	15,767,643	61
1910	25,433,628	9,514,887	1,555,742	1,006,025	3,489,976	968,102	44,902	16,579,634	65
1911	26,680,699	9,066,126	1,222,208	1,288,240	3,581,691	1,170,054	82,040	16,405,359	64
1912	31,768,534	11,243,198	1,504,219	1,271,815	4,215,719	1,532,646	184,097	19,950,694	62
1913	33,795,001	11,601,669	2,106,195	1,401,713	4,354,799	1,366,579	520,579	21,352,534	63

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In table XVIII we give the railroad transportation statistics for the coal coming from Upper Silesia, that during recent years, represented two-thirds of all the Polish coal production. This table, which includes the period of twenty-five years preceding the war, shows the exportation of coal, to the different markets belonging to the economic territory of Poland.

Note, that in the districts of Wroclaw (Breslau) and Pomerania, only those parts situated on the right bank of the Odra, (including the city of Wroclaw and the neighboring industrial centers, on the right bank of the Odra) belong to the economic territory of Poland. So, also, only one part of White Ruthenia and the Ukraine, that is, the basins of the Wilna, of the Upper Pripec and the Boh can rationally be considered as belonging to the Polish economic territory. Thus the accurate table of the shipments of fuel by rail from Upper Silesia to districts comprised within the economic boundaries of Poland, differ but slightly from the preceding table. Besides, the Upper Silesian collieries sent large quantities of coal by water, (by the river Przemsza) into Russian Poland and Galicia, by narrow-gauge railroads into near by localities of their own district and by wagon to small local business. Thus, it may be taken for granted that the actual, annual consumption of Upper Silesian coal by the industry and small consumers inside the economical territory of Poland is shown, with enough precision, by the figures of our table. In other words, 60 or 65% of the total coal production of Upper Silesia was used to fill the fuel demand in the territory of economic Poland.

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The same boundary lines — the Baltic Sea on the north, the Odra in the west, the Carpathians on the south, and the marshes of Pinsk on the east — limit the permanent market of the Polish iron production of Upper Silesia and the Kingdom of Poland. But Galicia, before the war, was obliged to get her entire supply of iron products from Western Austria. This abnormal condition was the result of the Austrian tariff policies that took into no consideration whatever, the needs of Galicia. Galicia constitutes a natural market for Polish iron, and so once more we repeat, the situation before the war, was abnormal and caused great loss and injury to this part of Poland.

We have adopted the **Odra as the western boundary of Polish territory.** This results first of all from the fact that all the right bank, also certain localities on the left bank, such as the city of Wroclaw and its neighborhood that are the centers of highly developed industry, is connected economically with the ethnographical territory of Poland. All this comparatively narrow belt depends almost entirely on the Silesian-Polish coal fields for fuel. And besides, the iron and steel works of Upper Silesia can furnish all the iron used in this region. The industry of this region, especially the mechanical industry, was carried on chiefly for eastern buyers. For the products of this part of Upper Silesia were sold, not on the left bank of the Odra, on territory that tended economically toward the powerful industrial center of Berlin, but in regions to the right of the Odra: Upper Silesia, the Grand Duchy of Posnania, Western Prussia and in part Eastern Prussia. It must also be borne in mind that the Odra whose source is

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near the Silesian-Polish coal field is the most natural and shortest waterway from Upper Silesia to the Baltic sea; that its principal tributary, the Warta, flows almost entirely through Polish country, ethnograpically Polish; that, in a word, the Odra, is an important channel of communication for economic Poland and that it is indispensable to keep this water course in the economic organism of Poland.

A glance at a geographical map shows that the Baltic Sea forms the northern boundary of the economic territory of Poland, notably from the mouth of the Odra to that of the Niemen. The great rivers, the Odra, the Vistula and the Niemen, that together with their principal tributaries flow through the most important territory of economic Poland, form a foundation for the development of a system of waterways that will embrace all the territory of economic Poland and will become one of the principal factors of the future growth of Poland.

Because, for the life and economic development of every state organism, it is of the greatest importance to be connected by sea with the world markets. And so, there is not in Europe a country that does not try either to open a way to the sea or to extend the coast line. In the last century, the principal problems of European politics were centered on questions concerning access or control of one or another sea.

It is the same for economic Poland: access to the sea and to maritime routes that will connect her with the markets of the West, South and North of Europe, as well as those beyond the sea, is a supreme necessity, these countries being important markets as well as reservoirs of natural wealth.

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Poland is sufficiently developed to be able, in certain domains of production, (in agricultural products and in agricultural industries) to operate with success on the European markets. But these great agricultural territories, belonging to economic Poland, have been cut off from maritime ports and ocean routes and in consequence Polish agricultural and industrial products have been entirely absent from the markets of Western, Southern and Northern Europe or playing only a very insignificant role.

The access to the sea, so necessary for the agricultural products, is likewise one of the principal conditions of the future development of large industry in Poland. It is only by maritime routes that the centers of textile industry will be able to get sufficent supplies from Egypt and South America; it is only by maritime routes reuniting the metallurgical centers of Poland with the rich iron-ore mines of France and Sweden, that the development of the Polish iron industry will be assured; it is only by economic maritime routes that, in the future, Polish industrial products will be able to make their appearance on the European and overseas markets and successfully compete with the products of those countries.

But the essential thing for the economic future of Poland is her union by maritime routes, with the natural wealth centers of Europe and the colonies. The future normal development of such important branches of Polish industry, as the metal and textile industries, is dependent on the question of opening for Poland a free way to the sea.

The geographical situation of the countries making up economic Poland is such that their only

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maritime boundary is situated on the north: that part of the Baltic coast from the mouth of the Niemen to that of the Odra. Although this coast line is not very advantageous, it has several seaports which, though small, are still natural outlets to the world markets. Among the most important ports, are Szczecin (Stettin) at the mouth of the Odra, Gdansk (Dantzig) at the mouth of the Vistula; and Królewiec (Koenigsberg) at the mouth of the Pregola. Among the ports of less importance are; Klajpeda at the mouth of the Niemen, Pilawa, Elblag, Usc at the mouths of the Slupa, Kolobrzeg (Kolberg), and Swinoujście (Swinemuende).

Table XIX, showing in tons the quantity of merchandise that was shipped in or out of these ports, gives an idea of the development of sea trade.

Harbors	1890	1900	1910	1913
Kłajpeda	391,937	310,892	438,809	415,700
Piława	282,483	356,754	120,120	96,081
Królewiec (Koenigsberg)	695,241	523,923	1,257,187	1,075,269
Gdansk (Dantzing)	931,391	1,053,774	1,372,698	1,532,590
Uść	59,607	——	128,397	138,808
Kołobrzeg	——	——	76,372	67,326
Swinoujście	259,625	480,986	476,424	352,450
Szczecin (Stettin)	2,238,267	2,327,473	2,567,443	3,165,794

So, of the Baltic ports of economic Poland, during recent years, Szczecin alone has shown an important commercial movement. Szczecin, which is the most westerly of these ports and covers the commerce of the basin of the Odra, the fertile countries of Pomerania, the Grand Duchy of Posnania, Middle Silesia and in part, Lower and Upper Sile-

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sia, which was a territory belonging entirely to Prussia before the war, hardly felt the terrible effects of the division of the country into three distinct political parts. The development of the other ports, especially Gdansk, Krolewiec, and Klajpeda that drained the commerce of the basins of the Vistula and the Niemen, was greatly hindered by having large parts of the country separated from them by a customs-frontier: by the peculiar transport policies of the Russian government that tended to favor the ports of Libawa and Rewel and neglect the waterways of the Polish countries in the Russian Empire.

The small development of the Baltic ports (with the exception of Szczecin) is a direct result of the division of the Polish economic organism into three distinct economic and political parts. The natural function of these ports would be to drain all Polish territory. But, cut into three detached fragments, this organism has become partially paralyzed and one of the most manifest symptoms is precisely the slow commercial development of these Baltic ports of economic Poland.

The union of economic Poland, by putting an end to the abnormal situation resulting from the dismemberment of its organism into three different parts with different politico-economic conditions would, without doubt, begin a new period of development and growth for the Baltic ports.

The eastern boundary of economic Poland is geographically determined by the marshes of Pinsk; thus the eastern part of economic Poland in-

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cludes all of Lithuania, almost all of Volhynia and Podolia and the narrow western zone of the Minsk and Witebsk regions. All this part of Poland is chiefly agricultural and forms an important center of agricultural production. For exportation these provinces are connected (to a certain degree) with western industrial Europe; for these regions tend towards the Baltic ports, that will connect them by economical ocean routes with the European cereal markets and the markets of agricultural products (sugar and alcohol).

In fact, the eastern regions of economic Poland, considered as agricultural countries, can find no natural market east of the Dnieper and the Dwina, in central Russia,that is also an agricultural country. Lithuania, White Ruthenia, Volhynia and Podolia can hardly dispose of their agricultural products except in the industrial regions of Poland where there are many large towns and populous industrial centers or on the markets of western Europe, towards which by the Vistula, the Odra and the Niemen the Baltic ports tend.

On the other hand, these agricultural regions form a natural market for Polish industrial products from the central and western districts.

There are also agricultural regions in the west and nothwest, (West and East Prussia, the Grand Duchy of Posen), whose products supplied in part the industrial regions of economic Poland, and partly sought markets in western Europe. These countries also provide markets for the industrial products of Upper Silesia and Wroclaw. In a word, as centers of agricultural production and as centers

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of consumption, these countries are closely connected to the principal centers of industrial production in economic Poland.

Thus, in a general way, may the boundaries of the economic territory of Poland be outlined.

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CONCLUSION.

The part of the European continent, bounded on the west by the Odra, on the east by the marshes of Pinsk, on the north by the Baltic Sea, and on the south by the Carpathian mountains, constituting economic Poland, in general yields nothing, in that which concerns her capacity for developing economic independence, to those states of Europe which, before the war, were great growing, thriving, economic organisms.

In fact, we have seen that economic life in the territories of economic Poland, divided among the three sharing powers, Russia, Prussia and Austria, could not develop, except, under very unfavorable conditions, chiefly because of the economic policies of these states: heterogenous policies with widely different tendencies, policies that knowingly neglected and even expressly opposed the economic interests of the Polish centers of production on Polish territory. However, in spite of these unfavorable conditions the Polish countries reached, before the war, a high level of economic development with important industrial centers both for output and manufacture.

This economic development, in spite of all obstacles, shows that the Polish countries possess the necessary factors of modern production, natural wealth and an enormous reserve of man-power. The reserve of capital only, is less favorable. The

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economic policies to which the country was subjected was unfavorable to the accumulation of capital and Polish industry was obliged, in great measure, to import foreign capital.

Poland has the natural factors upon which modern production in the larger sense of the word depends, yet has had neither the rapid nor large economical development that she could have had possessing such natural wealth and reserve of manpower.

The complete expansion of economic life in Poland has been blocked by political and politico-economic factors that defeated the favorable natural influences. The customs frontiers that have broken the economic organism of Poland into three fragments, have prevented the full realization of the value of the natural wealth and of the rational distribution of labor. Moreover, there could be no closed home market, except in Russian Poland. The other regions became markets for the industrial products of Germany and Austria.

Also, great territories of economic Poland, included before the war in Russia and Austria, were separated by custom frontiers from their natural ports on the Baltic, that is to say, from access to the ocean routes. This prevented the rational provisioning of industries using raw materials from abroad, for example, cotton. This also prevented the development of industries that could have been fed by raw material coming from the north and west of Europe. To be economical these importations should have been transported by maritime routes, by the Baltic ports and from there by waterways towards the interior of the country. But, the customs

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barriers that cut Poland into three parts and incorporated them into Prussia, Russia and Austria, made the use of these lines of transport almost impossible or very considerably raised the price of the raw material thus imported, to the prejudice of the vital economic interests of the Polish countries. In a word, **the political dismemberment of Poland, the division of the Polish economic territory, between the three sharing states, caused a succession of obstacles and drawbacks that taken together, prevented the Polish coutries from economic expansion, in conformity with their natural wealth, their reserve of man-power, with the geographical situation and the economic culture of Poland. So, the fundamental condition of the economic revival of Poland after the war, the only condition that can guarantee the normal working and development of economic life, is the abolishment of the mutilating frontiers, the customs barriers that isolate the economic parts of Poland, one from the other; it is the constitution of its different fragments into one home market, open to its industry and its commerce; it is, in a word, the union of the Polish countries inside their economic boundaries, into one political and economic organism, into a state, united and independent.**

THE END.

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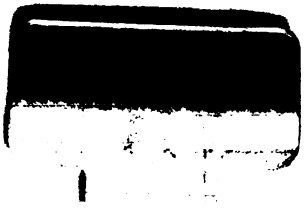

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